REPORT

on the working of the

DEPARTMENT OF AGRICULTURE AND FISHERIES

for the year

1965

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DEPARTMENT OF AGRICULTURE
93, Archbishop Street,
VALLETTA.

25th May, 1968.

Sir,

I have the honour to submit my Report on the working of the Department of Agriculture for the calendar year 1965.

I have the honour to be,
Sir,
Your obedient servant,

(A.S. Farrugia)
Director of Agriculture
and Fisheries

The Honourable,
Minister of Trade,
Industry and Agriculture,
Valletta.

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STAFF LIST OF SENIOR OFFICERS AS ON 31st DECEMBER 1965

Administrative and Executive Officers

Mr Anthony S.Farrugia,B.Com. B.Sc.(Econ.)	- Director of Agriculture and Fisheries
Mr George Portelli	- Administrative Officer
Mr Carmel Libreri, D.P.A.	- Higher Executive Officer
Mr Edgar Causon	- Higher Executive Officer
Mr Carmelo Spiteri	- Higher Executive Officer
Mr Carmel Callus	- Executive Officer
Mr Joseph Buhagiar	- Executive Officer

Technical Officers

Dr.André Cassar,B.Sc., B.V.Sc.,M.R.C.V.S.	- Principal Govt.Vet.Surgeon & Director of Govt.Vet.Services
Mr S.J.Zammit, F.R.H.S.	- Supt. of Government Farms
Mr J. Debrincat	- Senior Agricultural Officer
Dr.Gerald J.Peralta, D.Sc. (Agric.)	- Plant Pathologist
Mr George Cousin	- Supt.of Public Gardens and Plantations
Mr Joseph Frendo	- Chief Fisheries Officer
Mr Louis J.Saliba, B.Sc., B.Sc.(Hons.)(Lond.), B.Pharm.,B.I.Biol., F.R.E.S.	- Plant Pathologist and Entomologist
Mr C.Galea Enriquez, B.A., M.Sc.,F.R.Econ.S.	- Agricultural Economist
Mr A.Scicluna Spiteri,B.Pharm. B.Sc.Agric.(Durham),M.Sc., (Soil Sci.)(Durham),F.R.M.S.	- Agricultural Chemist
Mr Francis Portelli,B.Sc. (Hort.),B.Pharm.	- Horticulturist
Mr H.Galea Souchet,B.Sc. (U.C.D.),M.A.S.E., M.A.S.H.S.,M.I.S.H.S.	- Viticulturist and Oenologist
Dr.Frank Cassar,D.Vet.Med.	- Government Veterinary Surgeon
Mr Edward Ebejer Slythe, C.D.A.,C.D.D.	- Higher Agricultural Officer
Mr Joseph Debattista,N.D.A., C.D.A.,N.D.Agric.E., A.M.I.Agric.E.	- Agricultural Officer
Mr Clive Simpson,N.D.A.,C.D.A.	Agricultural Officer
Mr Dominic Sultana,N.D.A., C.D.A.,N.C.P.,C.C.P.	- Agricultural Officer
Mr Saviour P.Camilleri, C.D.A.	- Agricultural Officer
Mr Joseph Buttigieg,C.D.A.	- Agricultural Officer
Mr Peter Calamatta,C.D.H.	- Agricultural Officer
Mr Victor Rossignaud	- Agricultural Marketing Officer

F.A.O. Experts

Mr Godfrey G.Alton, B.Sc., M.R.C.V.S.	- Veterinary Bacteriologist
Mr Robert W.Crowther,B.Sc., M.R.C.V.S.	- Animal Health Officer

U.N.D.P./F.A.O.Horticultural & Demonstration Project

Mr Giovanni B.Mazzocchi	- Project Manager

Italian Veterinary Surgeons

Dr.Clodoveo Capitoli	- Veterinary Surgeon
Dr.Vincenzo Agamennone	- Veterinary Surgeon

CHAPTER I

The Department of Agriculture, Fisheries and Co-operatives

General

This was the second year of the 2nd Five-Year Plan and the Department was very active in implementing the various schemes approved under the Plan. The Actual Expenditure during 1964/65 amounted to £145,091 whilst the Estimated Expenditure for 1965/66 amounted to £314,207 for agriculture and £143,534 for fisheries to a total of £457,741.

Divisions in the Department

There was no change during 1965 in the organizational set-up of the Department which for administrative purposes, was divided into the following divisions, each a distinct entity under the charge of a divisional head officer:-

i) Administrative Division under the Assistant Director of Agriculture.

ii) Advisory and Extension Service under the Higher Agricultural Officer.

iii) Veterinary Services under the Principal Government Veterinary Surgeon.

iv) Diagnostic Laboratory under the Laboratory Veterinarian.

v) Brucellosis Laboratory under the Veterinary Bacteriologist.

vi) Horticulture Division under the Horticulturist.

vii) Public Gardens, Plantations and Afforestations Division under the Superintendent of Public Gardens.

viii) Marketing Division under the Agricultural Economist.

ix) Crop Protection Division under the Plant Pathologist and Entomologist.

x) Government Farms and Stock Station Division under the Superintendent of Government Farms.

xi) Viticulture and Oenology Division under the Plant Pathologist.

xii) Land and Water Use Division under the Agricultural Chemist.

xiii) Gozo Division under the Senior Agricultural Officer.

xiv) Co-operative Society Division under the officer in charge of Co-operative Societies.

xv) Fisheries Division under the Chief Fisheries Officer.

CHAPTER II
AGRICULTURAL DEVELOPMENT
CAPITAL EXPENDITURE

The activities of the Department continued unabated to effect the progress envisaged in the Second Five Year Plan for 1964/69.

The greatest effort was made in connexion with the Cattle Disease Eradication Scheme. The importance of keeping animal health under control can never be over-emphasized. Work on the new Cattle Quarantine Station at Marsa was also started.

Work on horticultural development in preparation for the setting up of the F.A.O. Horticultural Station proceeded as planned.

Financial assistance for the purpose of encouraging fruit planting was extended to various farmers whilst substantial improvements to public gardens were made.

Contacts with international bodies were kept up to further the scope of mutual help. For the first time Malta was represented at the 14th Session of the European Commission on Agriculture held in Rome at the F.A.O. Headquarters. Following this conference the various members came to Malta for a study tour of our agricultural establishments.

In November a Ministerial Delegation attended the 13th Session of the F.A.O. Conference in Rome and took part in all technical committees. The Planning Session was addressed by the Hon.Minister of Agriculture, Power and Communications and the Director of Agriculture participated in the work of the Commissions.

CHAPTER III
EXTENSION SERVICE DIVISION

1. General

The Extension Service continued in its work of advising the farmer and grower on all aspects of Agriculture during 1965. For this purpose, Malta was divided into four districts, namely:-

(1) North, (2) East, (3) West and (4) South each under the charge of an Agricultural Officer.

Extension Service Officers took charge of the main advisory functions of the Department - (a) the running of the Apprentices' School at Ghammieri, and (b) the holding of evening classes in Agricultural Subjects. The former consisted of a nine-month course in general agriculture for young farmers' sons, including both theory and practice. The latter courses which consisted of 30 lessons, all held at Floriana Primary School contained the following subjects: (1) Pig husbandry, (2) Dairy management and (3) Poultry husbandry.

In addition, a special course in general Agriculture for Seminarians was organised.

2. Sectional

A large number of farmers continued to come to the Government Experimental Farm at Ghammieri for help and advice. Though the recognised 'indoor' hours for the Agricultural Officers were from 8 a.m. to 9.30 a.m. some farmers turned up late in the morning or even in the afternoon. The appointment of a clerk, in continuous attendance in the Extension Service Office, ensured that any farmer, arriving outside of the scheduled hours, could either be attended to or, in case of technical advice, be brought to the notice of the District Agricultural Officer immediately.

During 1965, over 3,000 visits to farmers on their own premises were paid by Agricultural Officers. These were for the following purposes:-

a. Requests../..

A. Requests for loans:-

(i) Erection of glasshouses
(ii) Erection of Pig Units
(iii) Erection of Poultry Units
(iv) Purchase of Overhead Irrigation Equipment
(v) Purchase of Rotary Cultivators

B. Requests for Incentive Grants:-

(i) Repairs to Farmhouses
(ii) Extensions of electricity to farmhouses
(iii) Extension of water mains
(iv) Erection of Cloches
(v) Pig-breeding Improvement Scheme
(vi) Adopted Farms Scheme

C. Advisory Visits:-

(i) Erection of Poultry Units
(ii) Erection of Pig Units
(iii) Erection of Rabbit Hutches
(iv) Construction of water tanks
(v) Poultry, pig, dairy and rabbit diseases
(vi) Management of pigs, poultry, dairy and rabbit units
(vii) Feeding of pigs, poultry, dairy and rabbits

The whole concept of advisory visits was that of persuading the farmer or herdsman to acquaint himself with and adopt modern techniques. In the field of dairy management, some of the subjects discussed were the feeding of calves and milking cows, improvement of the butterfat content of milk, construction of calf-pens, milk recording, goat and sheep management for production of cheeselets. In the field of poultry-breeding, emphasis was placed on the rearing of chicks and growers, feeding of chicks and layers, lighting patterns for layers, disease-control and systems of housing.

To help the dry-land farmer obtain better and more lucrative crops, a programme of Farmers Meetings was worked out to present to farmers new proven varieties of

Sulla../..

sulla, onion and barley seed. This was so successful that after 17 farmers meetings during which 1167 farmers registered for seed all available stocks were exhausted. 104 follow-up visits were made to discuss seed bed preparation and cultivations.

A new variety potato (Pentland Dell) was tried out on field scale on a private farmers land to ascertain its suitability to local farming conditions. The yield obtained was lower than Arran Banner but as the tubers were of high quality and very suitable for the United Kingdom market further trials are warranted.

Nine small plots of 'durum' wheats were laid out this winter on the Extension Service field at Ghammieri to find a variety suitable to the farmer and also to the local macaroni industry.

A number of pig farmers was issued with free phials of Piglet Anaemia Injections in an effort to combat Piglet Anaemia. Various talks and meetings with farmers were held in various villages on the subject and on Advisory Leaflet (no.5) was compiled and distributed to farmers.

A drive was made to make farmers realise the necessity of having farrowing facilities on their pig units and a number of farmers have erected farrowing crates in their pens while some others imported and constructed tubular portable crates.

Apart from several articles on various aspects of Agriculture in the Department's paper 'Il-Bidwi', meetings for farmers were held in practically all the villages in Malta. All the meetings were well attended and farmers showed an evergrowing interest in the work of the Department and realized how this is helping them to improve their techniques. Meetings were also held in Gozo. After every meeting, not only are farmers becoming acquainted with Departmental Officers, but the ever-increasing number of them that turn up at the Farm for advice on various problems shows that the local

farmers../..

farmers are realizing more and more that only by their fullest co-operation with the Department can they really improve to a worthwhile extent.

3. Experiments

The 1 cwt. of 'Pentland Dell' seed potatoes imported from the United Kingdom in February 1965 was used in a yield-comparison trial with the local standard main crop 'Arran Banner'.

The trial was carried out on a private farmer's land in Dingli and was laid out in 8 randomised plots, each 350 sq.ft. in area, as below:-

Arran Banner - AB
Pentland Dell - PD

AB	PD
PD	AB
PD	AB
AB	PD

Local practice was followed and cut seed was used, planted in furrow. Date of planting:- 24th February.

Cutting of the seed proved to be less easy with Pentland Dell owing to the shallowness of the eyes and less pieces were obtained than from an equivalent weight of Arran Banner seed. The cost of the seed is very important consideration for the local farmer and this difficulty in cutting the seed may militate against the use of Pentland Dell by our farmers.

The plots were given identical treatment and were cultivated, sprayed and irrigated together with other potatoes planted out on the rest of the field.

There was hardly any vegetative difference during growth and the crop was lifted on 3rd May with yields as follows:-

367 lbs AB	329 lbs PD
273 lbs PD	388 lbs AB
352 lbs PD	322 lbs AB
385 lbs AB	273 lbs PD

The../..

The additional pieces of Arran Banner were planted out in a further plot at the same time as the rest of the trial and the yields from this plot was 423 lbs. So that final results obtained were:-

1. Yield from <u>equal weight</u> of seed
   AB 1885 lbs PD 1227 lbs

2. Yield from <u>equal numbers</u> of pieces
   AB 1462 lbs PD 1227 lbs.

As can be noted, Arran Banner appears to outyield Pentland Dell under the particular conditions of the trial. However, both the quality and appearance of Pentland Dell tubers was favourably commented on when taken to market warranting further trials. In fact a Farmers Union imported 11 cwts of Pentland Dell Seed from Northern Ireland and these have been given to farmers in different localities to observe the results obtained in different soils and under varying conditions of husbandry.

CHAPTER IV
VETERINARY SERVICES DIVISION

During the year under review, the Veterinary Services suffered a severe blow in the untimely death of Dr.Victor Restall, thus reducing the number of local Veterinary Surgeons from 2 to 1. This reduction in personnel was, however, soon remedied, thanks to the generosity of the Italian Government who, in virtue of the Assistance Scheme promised to send 2 Italian Veterinary Surgeons. One of them Dr.Clodoveo Capitoli arrived in Malta in the middle of May, 1965, while Dr.Vincenzo Agamennone arrived a fortnight later. By mutual agreement it was decided that Dr.Agamennone should proceed to Gozo to take charge of the Veterinary Service in Gozo while Dr.Capitoli remained in Malta to help the Principal Government Veterinary Surgeon. Thus Gozo had the regular services of a Veterinary Surgeon, a service which had been lacking since Dr.George Thake left Gozo in 1962. The services of the Health Officer, who had been carrying out meat inspections during the absence of the Veterinary Surgeon, were dispensed with.

At the beginning of December, 1965, Dr.Frank Cassar completed his course and returned to Malta. Thus, by the end of 1965, the Veterinary Services consisted of the Principal Government Veterinary Surgeon and Director of Veterinary Services assisted by one Italian and one Maltese Veterinary Surgeon and one Health Inspector in Malta and one Italian Veterinary Surgeon in Gozo. Moreover Research work on Brucellosis was continued by Dr.G.Alton at the Government Farm whereas Bacteriological and Diagnostic work was carried out at the new Diagnostic Laboratory at the Civil Abattoir, Marsa, by Dr.R.W.Crowther whose report follows.

The main activities of the Veterinary Services in Malta and Gozo fall under three main headings, i.e.:-

a) Activities in the Abattoir
b) Activities in the Field
c) Diagnostic work

a)Activities../..

a) ACTIVITIES IN THE ABATTOIR

The activities in the Abattoir constitute an essential public service in so far as they safeguard the health of the population. In fact, by law, all animals are slaughtered by Government butchers in the Abattoir and inspected by Veterinary Surgeons assisted by a qualified Meat Inspector.

The following statistics show the animals slaughtered at the Malta and Gozo Civil Abattoirs:-

(I) Slaughterings from 1st January to 31st December 1965

	Cattle	Equines	Pigs	Sheep	Lambs	Goats	Kids
Malta	8601	468	27939	4594	5484	7189	1728
Gozo	691	9	2553	196	932	159	298
Total	9292	477	30492	4790	6416	7348	2026

(II) Weight in rotoli of above number of animals slaughtered

	Cattle	Equines	Pigs	Sheep	Lambs	Goats	Kids
Malta	2674302	97201	2309948	171716	49620	180782	8690
Gozo	242153	2617	259659	5833	18841	3480	1776
Total	2916455	99818	2569607	177549	68461	184262	10466

Diseases and other causes of unsoundness of meat detected in the course of meat inspection

Meat condemned in the course of meat inspection is shown in Table No.10.

Peritonitis

Six bovine carcases, affected with Peritonitis, were condemned. Peritonitis in cattle is usually the result of neglected retention of the placenta or rough manual handling on the part of the owner during difficult calving.

Putrefaction../..

Putrefaction

Putrefaction is one of the commonest causes of unsoundness of meat. During 1965, 15 carcases were condemned as being in a state of putrefaction which is due to the fact that animals, slaughtered as emergency cases, decompose and putrefy quickly especially during the hot summer months.

Tuberculosis

Table No.10 also shows that 12 carcases were condemned owing to generalised Tuberculosis. This figure does not represent the total number of tuberculous cows slaughtered during the year but only those cows that were found affected with Tuberculosis during the routine meat inspection. All cows that are positive reactors to the Tuberculin Test are slaughtered on non-slaughtering days, i.e. Tuesday and Thursday and are not included in the Table above referred to.

Modernizing the Civil Abattoir

A sum of about £45,000 spread over several years were spent in modernizing the Civil Abattoir which was antiquated and too small to cope with the ever-increasing number of animals slaughtered. The amount of work has increased and, with the expansion of the Civil Abattoir and the addition of more machinery and equipment, more personnel is needed.

It is also important that an annual provision be made in the estimates for the maintenance of the Abattoir. In the past, such a provision was included under the Public Works Department's vote out of which the cost of maintenance work was met. This procedure was discontinued and, during the last few years, all maintenance work was carried out and defrayed from the Agriculture Vote for the Modernizing of the Civil Abattoir.

Extensive repairs are needed to keep the Civil Abattoirs in a good working order.

b)../..

b) ACTIVITIES IN THE FIELD

Activities in the field consist in the Prevention, Control and Eradication of animal diseases.

(i) Prevention

Every year, Malta imports about 7,000 head of store cattle which are fattened from three to five months and then slaughtered. These store cattle, supplemented by another 2,000 local bovines, represent the total consumption of fresh beef in these Islands. This importation, carried out throughout the whole year, constitutes a serious danger of introducing infectious or contagious diseases. As importation cannot be avoided since fresh beef is preferred to frozen beef by the majority of the population, we have no option but to take the strictest precautions.immaginable before any consignment of store cattle arrives in these Islands. In fact unless the exporting country is totally free and has been free for several months from Foot and Mouth Disease no Import Licence is granted. These precautions may appear to be too drastic but they are essential. In fact by adopting these measures we have succeeded in keeping these Islands free from Foot and Mouth Disease and other infectious and contagious diseases for the last 19 years. These precautions are also essential for various reasons. For instance

a) the size of these Islands measuring only 100 square miles, does not permit of any strict isolation of any infected animal.

b) some of the cow-sheds and most of the pig sties are extremely difficult, if not impossible, to disinfect properly.

c) the control of the movement of animals would be an extremely difficult task.

d) the Quarantine Station at Manoel Island was demolished by enemy action and has never been re-instated. Only one shed capable of housing about two hundred bovines is left. The Quarantine Station, if re-instated, can be of

some../..

some help in case of an emergency. In fact it can give some breathing time during which we can inject our animals with Foot and Mouth Disease vaccine, thus creating a buffer zone.

It has been decided to build some sheds at Zammit Dock which is now serving as a landing place where imported cattle are examined immediately they are unloaded and subsequently kept for 24 hours fasting period. Zammit Dock is not ideally situated for quarantine purposes as the present Lazzaretto Quarantine Station was but after various vain efforts to find an ideal place, there was no alternative to accepting Zammit Dock as a Quarantine Station. The sheds are now nearing completion.

A weak link in the chain of precautions taken to prevent the introduction of diseases lies in the Supplies and Services Act, 1947 (Importation and Control Regulations 1959) which needs certain amendments to make control more effective.

Besides the strict control exercised before granting an Import Licence, all cattle are examined immediately on arrival. They are then kept under observation for another three or five days and again examined before they are released.

Horses are likewise examined on arrival for Glanders and Farcy and other infectious diseases and dogs, imported from countries where Rabies is known to exist, are kept in Quarantine for six months in Government Quarantine Kennels as are dogs, coming from Rabies free countries if they happen, during their journey, to have passed through countries where Rabies exists.

Cats, coming from any country, are not subjected to any quarantine as our existing regulations do not contemplate cats. Although dogs can be very dangerous in transmitting the disease, yet cats cannot be excluded from being potential carriers, and existing regulations need amending to include cats. Draft

Regulations have been prepared and are being studied.

Lately, the number of dogs that had to be kept in quarantine greatly exceeded the number of kennels available and this has been a constant headache.

If the existing regulations and those envisaged to be enforced soon, are to be effective more kennel accommodation must be provided.

(ii) Control

The most prevalent animal diseases were:-

(i) Bovines: Tuberculosis, Brucellosis, Mastitis and Enteritis in calves.
(ii) Swine: Swine Fever, Swine Erysipelas and Enteritis in young pigs.
(iii) Caprines: Brucellosis
(iv) Poultry: Fowl Pox and Respiratory Diseases.

a) Bovines

The control of Tuberculosis and Brucellosis will be explained under the heading "Eradication".

"Mastitis" is known to be widespread and on the increase and that there are several types of Mastitis but as farmers have got into the habit of treating their animals themselves, irrespective of the type of bacteria causing the disease, control of the disease is becoming more difficult.

To stop such a practice it is essential that the sale of intrammary injections should be prohibited without a Veterinary prescription. Now that the Veterinary Diagnostic Laboratory at the Civil Abattoir is established, farmers are encouraged to bring their milk at this Laboratory to be examined before treatment is started. During the year under review a few farmers availed themselves of such facilities but the majority did not.

For calf enteritis see the following Chapter on Veterinary Research.

b) Swine

Swine Fever has become endemic and year

after../..

after year is playing havoc with the swine population. If it were not for this disease, the number of pigs, reared in these Islands, would be much bigger and the pig breeders' and rearers would not lose so much money. In the past the only measures taken to check this disease consisted in the vaccination of pigs on request. During the current year, about 11,000 pigs in Malta and Gozo - roughly 1/3 of the number of slaughtered pigs - were vaccinated against Swine Fever. However, it is gratifying to note that the Swine Fever Compulsory Vaccination of Pigs Regulations, were enacted in November, 9th, 1965 and thus, next year all pigs between 2 and 4 months of age will be vaccinated.

During 1965, 30,492 pigs were slaughtered at the Civil Abattoirs. This figure, though slightly higher than that of the previous year, is yet much lower than the number of pigs slaughtered during 1963.

Swine Erysipelas

This disease is also endemic but its ill effects on our pig population are mitigated by the fact that nowadays it is easily cured and whenever one pig dies of swine erysipelas, the rest of the pigs are vaccinated in time and cured. Over 6000 pigs were prophylactically vaccinated against Swine Erysipelas this year free of charge by the Veterinary Service.

c) Caprines

The principal disease affecting goats is the "Brucella Melitensis". About 12% of our goat population are affected with this disease and the losses through abortion and reduced milk yield must be quite relevant although our farmers do not seem to appreciate such losses as they occur intermittently and only few goats abort every year. However, for the last seven years, research work has been carried out and is still being carried out with a view to finding a suitable vaccine which will immunise goats against Brucellosis. The vaccination of female kids between three and six months of age is compulsory by law and this year about

2000 kids in Gozo and just over 1000 kids in Malta were vaccinated with the Rev.1 vaccine.

d) Poultry - See Chapter on Veterinary Research.

(iii) Eradication

The testing of cows for Tuberculosis and Brucellosis was carried out smoothly both in Malta and in Gozo without encountering any opposition on the part of herdsmen. All the bovines in Malta and Gozo were tested twice with the Single Intradermal Tuberculin Test and those cows showing any positive reaction, were again tested with the Double Comparative Test six weeks after the first test. Cows being positive to the second test are slaughtered forthwith and the herdsmen compensated. The herds with positive cow or cows are tested more frequently.

With regard to Brucellosis samples of milk are taken every three months from churns delivered at the Milk Collection Depots and the samples are subjected to the Milk Ring Test. If this test proves to be positive for any particular herd, then milk samples from every individual cow in that herd is taken or if any cow happens to be dry, then blood samples are taken. The milk is cultured and the blood is subjected to the Agglutination test and in doubtful cases also subjected to the Complement Fixation Test.

During the year under review all the cows in Gozo were free from both Brucellosis and Tuberculosis while in Malta all the cows were negative to Brucellosis but 70 cows were positive to the Tuberculin Test and slaughtered. The fact that only 70 cows were found positive to the Tuberculin test out of a total number of 6000 cows shows that the incidence of Tuberculosis in our cows has been reduced from 40% in 1957 to just over 1% in 1965.

For the first time since the inception of Disease Eradication Scheme in 1957, the sum of money allotted annually for the eradication of Tuberculosis and Brucellosis, was not totally spent.

These../..

These facts give hope that by the end of the Second Five Year Plan Malta will have achieved her aim to eradicate bovine Brucellosis and Tuberculosis from Malta and Gozo.

In Malta and Gozo:

91,694 poultry were vaccinated against Fowl Pest
94,200 poultry were vaccinated against Fowl Pox
whereas 6,371 and 10,987 pigs were vaccinated against Swine Erysipelas and Swine Fever respectively.

Six thousand head of cattle were also tested at least twice during the year and some of them were tested even three or four times. Each test of every herd involves three calls to the farm; the first time to inform the owner about the date and time of the test, the second call when the cows are tested and the third call 72 hours after the test to take the measurements of the skin.

On top of all this work over 3000 female kids were vaccinated with Elberg vaccine against "Brucella Melitensis".

When one takes into consideration the facts that poultry, pigs, kids and cows are scattered in every corner of Malta and Gozo and that farmers, who must also attend to their fields, are not always on their farms to help the Veterinary Assistants and thus a lot of time is wasted, one must appreciate the excellent work done by the 4 Veterinary Assistants and 1 Herd Inspector. Had it not been for their devotion and high sense of duty it would not have been possible to achieve so much.

Next year there is bound to be more work to be done as about 40,000 pigs will have to be vaccinated against Swine Fever in virtue of the Prevention of Disease (Swine Fever) Regulations, 1965. The number of kids to be vaccinated is also bound to be higher because there are definitely more than 3000 female kids in Malta and Gozo.

With../..

With the compulsory vaccination of kids and pigs and the compulsory testing of cows for Tuberculosis and Brucellosis on top of the voluntary vaccination of poultry against Fowl Pox and Fowl Pest and the vaccination of Pigs against Swine Erysipelas a considerable load of work is anticipated.

Artificial Insemination

Artificial Insemination in cows was started on voluntary basis in 1960. Knowing how conservative and sceptical farmers are, the Department did not expect spectacular results. However, during 1960, 120 cows were artificially inseminated. The majority of these were cows that failed to conceive by natural mating. In 1961 and 1962 the number of cows artificially inseminated was 231 and 214 respectively. After the first three years of trial one would have expected the number of cows artificially inseminated to be increased but this was not the case. In fact, in 1963 and 1964 only 139 and 155 cows respectively were artificially serviced. This poor response on the part of farmers was due to several shortcomings which have since been put right. During the year under review, 727 inseminations were carried out which fact gives every reason for hope that the barrier presented by the farmers' conservatism has been broken through and that, in the future, more cows will be mated artificially. To achieve this aim, more inseminators will be required to continue the excellent work achieved this year.

Veterinary../..

VETERINARY RESEARCH

During June, the Veterinary Diagnostic Laboratory was moved from the Government Farm to the Civil Abattoir. The Abattoir is in fact more centrally situated and more of a focal point for the livestock breeders. Subsequent experience has shown a steady rise in the volume of laboratory material which is now about twice what it was earlier in the year.

The Artificial Insemination Service has continued to expand, and by the end of the year approximately 25% of the cows in Malta which came into season were being covered by the Service. This has been brought about by the use of imported frozen semen, by increased publicity, by putting the service on a seven day week basis and generally because cattle owners have become more confident in the results.

Locally produced vaccines against Fowl Pox and Newcastle Disease have been used on a larger scale. Newcastle Disease died out about two years ago and there has been a satisfactory reduction in the number of outbreaks or Fowl Pox.

Generally the year has been a satisfactory one for the control of contagious disease. Bovine T.B. and Brucellosis are nearing eradication through the programmes initiated and directed by the Principal Government Veterinary Surgeon, and significant progress has been made towards the control of Brucellosis in goats by the Brucellosis Laboratory. The incidence of Swine Fever has fallen to a very low level following the more widespread use of live vaccines and further control should be obtained by a compulsory island-wide vaccination programme during 1966.

The main problems at the moment are a high incidence of coliform infection in young calves and pigs, a moderate degree of infertility in cattle, and a high incidence of Fowl Typhoid amongst the larger poultry flocks. Otherwise much remains to be done in improving standards of management and feeding, particularly for dairy cattle and pigs.

Routine../..

Routine Diagnosis

During the year, 507 cases or outbreaks of disease were investigated. The comparable figures for last year was 251. The demand for this service continues to come mainly from the poultry industry but there has been a satisfactory increase in the material coming from other forms of livestock. The relative figures for diagnostic material examined are:-

Poultry	Cattle	Pigs	Sheep and Goats	Miscellaneous
411	38	36	5	22

The incidence of the principal diseases for which a diagnosis was requested was:-

	Outbreaks
Fowl Typhoid	33
Coliform infections (poultry)	19
Leucosis	31
Fowl Pox	7
Pullet disease	30
Ca/vit. D deficiency	35

An account is given below of those diseases of economic importance.

Calf-hood mortality: This is probably the most serious livestock problem at the moment. Losses are in the region of 50% during the first month of life. Some control has been effected by the use of E.Coli serum prophylactically but results have varied considerably from farm according to the management. Apart from feeding and hygiene, practically no dairy farm in Malta has proper accommodation for rearing calves or a calving box.

A start was made this year towards providing pens for rearing calves. On one farm the owner was given a small grant to assist him in modifying an existing building and the results have been very satisfactory. Plans for another unit have been approved and it is hoped to bring a further twenty herds into this scheme in the near future.

Mastitis../..

Mastitis:- The incidence of this disease on cattle is difficult to estimate because of the prevalence of home treatment. However, sufficient information has been accumulated to say that no one organism predominates. The incidence was evenly spread between Beta-haemolytic staphylococci, Haemolytic Streptococci, Strept. agalactiae and Corynebacterium. Coliforma were not encountered.

Infertility:- Probably about 5% of our cattle are difficult breeders. The usual history is that the cow comes into season regularly but either fails to conceive or returns to service some two or three months later. Usually there is no gross abnormality, but the ovaries are small and inactive. This type of cow will usually become fertile following hormone treatment.

Pigs

Piglet Mortality:- Deaths amongst young pigs have been the main cause of loss to the industry. Bacterial examinations have usually proved negative but microscopic examination of the intestinal contents have indicated a coliform toxaemia in most cases. True oedema disease in the post weaning stage has not yet been recognised. There have been indication on several occasions of a Clostridial enterotoxaemia but this has yet to be confirmed. S.Cholerae suis was isolated on one occasion. A good deal of publicity and assistance has been given during the year towards the use of iron injections for piglets.

Swine Fever:- During the year the Field Staff carried out 11,000 vaccinations with a live vaccine against Swine Fever. This has again been associated with a very low incidence of the disease and there can be little doubt that this type of vaccine has proved to be a valuable method of control under local conditions. The Principal Government Veterinary Surgeon proposes during 1966 to carry out compulsory vaccinations on all pigs throughout Malta. Further developments in control must await the results of this policy.

Toxicology:- It is to the credit of the Sanitary Authorities that poisoning of domestic stock by rat and mouse bait is relatively uncommon. The following other

causes../..

causes of poisoning have been identified with a reasonable degree of certainty, namely:-

Cotten seed poisoning in calves
Oxalis poisoning in cattle, sheep and goats
Poppy poisoning in sheep

Poultry

Fowl Typhoid has again been troublesome in the larger poultry units and it has become very clear that the only rational policy is one of eradication. One of the largest flocks has at last been cleared and the others will probably follow during 1966. A number of outbreaks occurred in young chicks, six days old, and in these cases it was established that the infection was egg-transmitted.

Deficiency of Calcium/Vitamin D has been very common during the latter half of the year in stock of all ages. It appeared probable that stocks of protein concentrate had deteriorated as a result of storage during the hotter months. However, it had been the practice to feed limestone grit as 3% of the ration which is hardly sufficient for modern layers. In addition, local supplies of limestone are apt to vary in quality. The most characteristic lesion in adult stock was a collapse of the rib cage at the mid costo-chondral junction.

Pullet Disease was diagnosed for the first time during May and has been common ever since. The disease here is primarily a nephritis and is nearly always associated with stress, over-crowding and poor ventilation being common factors. Apart from identifying and relieving the stress, some success has attended the use of molasses in the drinking water.

Rabbits:-

The principal causes of loss diagnosed have been coccidiosis and sarcoptic mange. Snuffles and Otodectic mange are common and rabbit syphilis is still seen occasionally.

An outbreak of enterotoxaemia caused by Clostridium Welchii Type E was encountered during

December../..

December but the significance of this is still unknown.

Myxomatosis amongst wild rabbits which occurred for the first time in 1964 appears now to have burnt itself out.

Local Vaccines:-

The production and issue of these has continued and a total of 610,500 doses was distributed. The corresponding figure for 1964 was 181,000 doses.

The individual types of vaccine were:-

Fowl Pox Vaccine	302,300 doses
Pigeon Pox Vaccine	166,000 doses
Newcastle Disease Vaccine	142,200 doses

Amongst a poultry population which probably numbers more than a million head, there is room yet for a considerable increase in the use of vaccines. However with the coverage obtained there has been a definite reduction in the number of outbreaks of Fowl Pox. Newcastle Disease, fortunately, has not reappeared and there is little need at the moment for this vaccine.

Artificial Insemination in Cattle

The year has seen a rapid build up in the use of this service. 727 inseminations were carried out compared with a total of 155 during 1964. Deep frozen semen from proven bulls was obtained through British Semen Exports Ltd., and this branch of the service, starting in September, is already very much in demand. The comparative figures are:-

Fresh Semen	578 inseminations
Frozen Imported Semen	149 inseminations

Of the total of 727 inseminations carried out, 549, 75% were first inseminations. This however, cannot be taken as an indication of the conception rate because 313 services were carried out during the last three months, and a proportion of those cows which failed to conceive may have been slaughtered or put to the bull.

It is hoped that two new Inseminators will be trained during 1966 and that the service will be extended to the sister island of Gozo.

General../..

General Remarks on Livestock

Poultry:- Egg production has continued to increase to the extent that a small but profitable export market has been developed. Broiler production was started for the first time on a commercial scale and expanded rapidly. By the end of the year it became possible to cease further imports of poultry meat. By contrast, during 1963, there were imported approximately 15 million table eggs and 1/3 million kgs. of poultry meat.

Pigs:- By comparison the pig industry is still relatively under-developed, but there are already signs of a change over to larger units run on modern lines. Two 90 sow units were set up during the year, and a further one is planned. The prices for porkers, fat hogs and baconers have remained favourable, and the Malta Bacon Company have been able to recommence processing operations on local pigs.

Cattle:- The main change in the dairy industry has been the introduction of artificial insemination as an accepted factor in normal farm management. This has been associated with a drive towards better housing and care of the calves which should start to show results during 1966.

Synopsis:-

Since moving the Diagnostic Laboratory to the Civil Abattoir there has been a definite increase in the amount of material brought for examination. 507 cases or outbreaks of disease were investigated compared with 251 during 1964. The demand continues to come mainly from the poultry industry.

Issues of poultry vaccines increased from 181,000 doses during 1964 to 610,500 doses during the last year.

Deep frozen semen from proven bulls was imported for the first time from the United Kingdom. There has been a rapid and satisfactory increase in the demand for artificial insemination. A total of 727 inseminations were carried out compared with 155

during../..

during the preceding year. Approximately 25% of the national herd were being inseminated artificially by the end of the year.

The year has been characterised by a very low incidence of contagious disease in livestock. Bovine T.B. and Brucellosis are on the point of eradication. The incidence of Swine Fever has been very greatly reduced following the use of live vaccines. Fowl Pox similarly has been uncommon and Newcastle Disease has not reappeared.

A drive is being made to control calf-hood mortality by assisting in the construction of better accommodation. Piglet anaemia is being reduced by the widespread use of subsidised iron injections.

Commercial broiler production was started during the year and has increased to the level where Malta is now almost self-supporting in poultry meat.

Animal../..

Animal Brucellosis: Research and Control Measures

This project continued to be directed by an Officer of the Food and Agriculture Organization of the United Nations.

Dairy Cattle

The policy continued to be one of testing by the agglutination test and slaughter of reactors in herds known to be infected with Brucella abortus. Cows in known Brucella melitensis infected herds are being left pending control of this type of infection in goats.

In the first half of the year, routine ring tests were carried out on can samples of milk. In positive herds agglutination tests were carried out on individual cows and the milk of reactors was cultured. No Brucella abortus infection was detected. In the latter half of the year an attempt was made to discover whether the type of infection present in a ring test positive herd could be detected by biological tests, i.e. by the injection into guinea pigs of samples of milk taken from positive cans. Of 24 ring test positive cans sampled, only 2 produced brucella infections in guinea pigs and the method was abandoned as having little value under Maltese conditions.

Brucellosis in Goats

1. Research

The Experiment to Investigate the Length of Immunity Produced by the Rev.1 Vaccine.

Immunity tests on the first half of the goats vaccinated as kids in 1962 were carried out in the early months of this year. 25 vaccinated goats along with 25 similar but non-vaccinated goats were exposed to Br.melitensis infection by natural contact with aborting "donor" goats.

Briefly, the result of this part of the experiment showed that the vaccinated goats were as resistant to Br.melitensis infection at this time, 2½ year after vaccination, as were goats exposed to

infection../..

infection at much shorter intervals after vaccination. Heavy infection resulted in the non-vaccinated.

In view of the very good result obtained at this stage, it was decided to postpone exposure of the remainder until the winter of 1966-67 and this should give us an indication of the immunity remaining 4½ years after vaccination with Rev.1.

Investigation of the Stability of the Living Attenuated Rev.1 Vaccine.

Last year we started an experiment to test whether the living Rev.1 vaccine strain of Br.melitensis had any tendency to return to cirulence. This was done by passaging the strain from one pregnant goat to another without intervening culture of the organism. This was accomplished for two passages, but it was not possible to establish a third passage, presumably because the dose of Rev.1 organisms that could be harvested to infect succeeding goats, fell with each passage.

This year, further work along these lines was attempted, but this time Rev.1 was grown in culture between passages and the dose of organisms injected each time was adjusted to the normal vaccine dose. Starting with material from the second passage in the previous years attempt, a further two passages were carried out in the spring of 1965 and a third one started in the autumn. No change in virulence was detected after the first two of these passages as measured by the ability of the organisms to persist in the guinea pig.

Laboratory Activities

All the Rev.1 vaccine for field use was produced in the laboratory, as were all the reagents used in diagnostic tests and in the investigations into diagnostic tests. Work designed to improve the diagnosis of caprine brucellosis continued.

2. Control of Caprine Brucellosis in the Field

Compulsory Vaccination of Kids

First applied last year in Gozo, the regulations requiring the vaccination of all female kids between the ages of three and six months were applied to both

islands../..

islands this year. During 1965, on the island of Gozo, 1809 kids and 193 adult goats were vaccinated with Rev.1 and in Malta, 756 kids and 2 adult goats, making a total for the year of 2,760 vaccinations. This result may be considered reasonably satisfactory for Gozo, but not for Malta itself where more effort to enforce the regulations will be needed in future.

The Register of Brucellosis-free Goat Herds

While vaccination is expected to reduce the incidence of caprine brucellosis, it is considered that a campaign based on testing with slaughter of reactors will be needed if we are to achieve our aim of total eradication of the disease. With total eradication in view, a scheme was started this year under which goat herdsmen can, by a system of testing with slaughter of reactors, if any, qualify for registration of their herds as brucellosis-free. Owners of registered herds receive a bonus of fifteen shillings per head of goats in the herd. By the end of 1965 a total of 16 herds has been registered as brucellosis-free.

CHAPTER V
THE HORTICULTURAL DIVISION

A. Advisory Work

As in previous years the main line of activity was glasshouse tomatoes although advice was given to growers on various other crops such as strawberries, beans, peppers, melons, mushrooms, flowers, etc. This year emphasis was put on increasing both the number of tomato exporters as well as the quantity of export quality fruit. With this end in view, various glasshouse growers were supplied with plants and demonstrations were given at the Government Farm or on the growers' own holdings. Those growers, who had been selected as potential exporters, were visited regularly every week and even more often if it was considered necessary.

B. Demonstration Day

A whole day was spent at the Glasshouse Section, Ghammieri, on lecturing to the growers on Tomato Propagation with many demonstrations and practical points of great importance. This was a great success and a good number of growers attended. Many of the growers have adopted an improved system of planting, watering, fertilizer application, etc.

C. Experimental Work

1. Cambridge Alumabrite Glasshouse (heated)

Steam Sterilization: Steam sterilization was carried out, trenches only being steamed. After steam sterilization, samples of soil were analysed to determine the conductivity which proved to be extremely high. To lower this, a flooding programme was carried out and 12,000 gallons of water were applied to the trenches to bring the salt content down to a satisfactory level.

Application of Base Fertilizers: A compound of base dressing (12-4-5) was given at the rate of 5½ lbs. per 100 feet run of trench. Peat was also applied at the rate of ½ bale per 100 feet run of trench and was forked into the soil together with the base fertilizers. The trenches were then made into banks, each bank containing 2 plants.

Propagation:../..

Propagation: (Variety Fountain Cross) Sowing was carried out on 22nd August, 1964, in a John Innes compost at the rate of 300 seeds per box. Germination of the seed was 93%. Pricking out into paper pots was carried out on 1st and 2nd of September. The potting compost was equivalent to John Innes I mixture.

Planting: Planting at 12 inch spacings commenced on 24th September, 1964, and was completed on the 25th September, a total of 960 plants. This crop was grown on a commercial basis.

Feeding: Liquid and dry feeds were applied depending on plant requirements. Liquid feed was applied with every application of water commencing 1st October, 1964, until 30th April, 1965.

Water: Water was applied at varying rates, depending on climatic conditions and plant requirements.

Spraying: Routine sprays were carried out at 10 day intervals as a prevention against blight and Cladosporium; spraying commenced on 14th October, 1964, until 1st January, 1965, when this was discontinued, to determine whether it was in fact possible to control both these diseases with good ventilation and heating. This proved most satisfactory and no trace of either of these diseases was found at all during the entire growing season. It must be pointed out, however, that conditions during the growing season did not favour the outbreak nor the spreading of these diseases, there being less humidity than experienced in previous seasons.

Ventilation: Ventilation plays an important part in the control of fungal diseases and during the growing season ventilation was given at all times, by day as well as by night.

Growth: Due to high night temperatures during the early stages, the plants tended to get away too quickly and in some cases some plants produced 7 or 8 leaves before the first truss appeared. The first, second and third trusses were mainly made up of 6 to 8 tomatoes on each truss. As the nights began to get cooler, the plants settled down

to a../..

to a steadier growth, giving larger trusses and in most cases only a distance of 3 leaves between each truss. Some plants produced 20 trusses during the growing season. Generally, the setting was good and an electric bee was used almost daily to improve setting. Very few plants suffered from virus infection and these may have been caused by seed borne infection.

Boiler: The boiler was brought into operation on the 13th November, 1964, and continued in use until 4th May, 1965. Only one serious breakdown occurred, putting the boiler out of action for three nights from 24th January to 26th January, 1965. The night temperatures for those dates being 46°, 50° and 43°F respectively. The crop did not appear to suffer any great setback by these low night temperatures.

Yield:

	1964/65
Period crop was in the ground	42 weeks
Total yield in lbs.	9021 lbs.
Total yield in Qantars & Rotoli	51 qantars 55 rotoli
Yield per plant	9.39 lbs per plant
Yield per acre calculated at 14,000 plants per acre	58.7 tons

During the entire cropping season, grading of all fruit was carried out and the final figures of the respective grades were as follows in rotoli and ozs.

Pink	Pink & White	Pink & White Cross	White	Blue
385.3	2831.11	1362.1	371.28	123.10

The total amount of rejects amounted to 81 rotoli 14 ozs.

Export trials of tomatoes were carried out, the first packages being exported on December 11th,1964, and the final consignment on 15th April, 1965. During this period 502 packages each containing 6 lbs.nett, were exported in the following grades.

	Pink	Pink and White	Pink and White Cross	White	Blue
Packages	39	278	143	36	6
Weight (lbs.)	234	1668	858	216	36

2.Locally../..

2. Locally built Guernsey type Glasshouse (heated)

This house was planted with French Climbing Beans, variety Veitch's Climbing. They were sown in 3½ inch pots on the 24th September, 1964, and planted out on the 7th October, 1964. They started cropping on the 18th November, 1964 and continued till 15th February, 1965. 398 plants yielded 111 rotoli 18 ozs., that is 8½ ozs. per plant.

At the end of cropping, the plants were pulled out and the glasshouse sown again (this time "in situ" on the 20th February, 1965) with the same variety and number of plants. From this second crop, picking commenced on the 19th April and lasted till 15th of the following June. The yield was 253 rotoli i.e. 19¾ ozs. per plant. A trial sample was exported to Covent Garden and it fetched three shillings per pound.

3. Cucumber House (heated)

The planting trenches only were steamed and the first crop was sown on the 15th September, 1964, the plants being planted out at 1½ feet apart on the 15th October, 1964. The period of cropping was from 24th November, 1964, to the 31st March, 1965. Of the six varieties tried "Bittex" and "Telegraph" were the earliest.

When the first crop was pulled out a second crop of cucumbers was taken from this glasshouse, this having been sown in Hartmann pots on the 2nd February, 1965, and then planted in 9 inch whalehide pots on the 15th March, 1965. Picking from this crop started on the 23rd April and continued till the 23rd June, 1965. Only two varieties were selected for this crop, these having been last year's highest yielders.

4. Hydroponics.

The two halves of this heated glasshouse had different aggregates: one was a form of hard local grit and the other was a black vulcanic aggregate imported from Sicily. During the trial, our original belief that the local aggregate was too calcareous was borne out by the appearance of chlorotic effects on the plants which then had to be helped by applications of iron chelate.

The../..

The different varieties which were tried in both aggregates did better, without exception, on the Sicilian aggregate.

5. Cold Polythene Lean-To. This polythene house (19 feet X 12 feet) was planted with 'California Wonder' green bell-peppers (84 plants) which were sown on the 4th November, 1964, pricked off on December 9, and planted out on 19th January, 1965. The period of cropping extended from the 22nd April to the 8th July, 1965. The total yield was 1,198 fruits weighing 97 rotoli 4 ozs., that is each plant yielded 14½ ounces of fruits each of which weighed approximately 2½ ounces.

Another 180 green pepper plants of the same variety were also planted in frames (sown 4/11/64, pricked off on 9/12/64 and planted out on 22/1/65) and these yielded 2,328 peppers, giving a total weight of 156 rotoli 25 ozs. The period of cropping was from the 10th May to the 14th July, 1965, each plant giving 26 ounces of fruits each of which weighed approximately 2 ounces.

6. Small Pratten Glasshouses (cold)

The three small Pratten glasshouses (cold) were planted with flat, ribbed Italian tomato varieties which gave various yields.

General

Three Guernsey glasshouses (100 feet X 28 feet each) with glass partitions in the middle were erected and the construction of the Horticultural Packing and Potting Shed and the new Offices was started.

CHAPTER VI

PUBLIC GARDENS, NURSERIES, PLANTATIONS AND AFFORESTATION DIVISION

Rainfall registered was as follows:-

	San Anton	Buskett
January	5.01	3.45
February	7.85	5.99
March	.92	1.23
April	.43	.30
September	3.63	4.76
November	.72	1.10
December	7.23	5.50

San Anton Public Gardens

As these are the most frequented gardens in the Islands, they have to be well kept clean and tidy in order to give full glory to the display of flowers throughout the year.

Beds and borders of annuals and perennials received constant attention and the show of the various colours of their flowers was maintained.

Cinerarias were quite a feature in the gardens with that long period in bloom.

The construction of an extension of the aviary was one of the many improvements carried out during the year. Accommodation was found for the four Baboons from South Africa, presented by the Royal Sussex Regiment.

Another donation consisted of a garden bench with the following inscription "Presented to the People of Malta in recognition of the kindness and hospitality given to the soldiers of the Duke of Edinburgh's Royal Regiment, during their stay in the Island, December 1962/ December 1965".

The Italian Government very kindly donated to the Malta Government 13,000 young trees in pots. The first consignment of 4,000 consisted of the following: Acacia, Cupressus pyramidalis, Casuarina and Eucalyptus whilst the others will follow in due time.

New../..

New Gardens and Traffic Islands

The new gardens are situated in the following localities:-

Attard, near the Government School
Rabat, St.Dominic Square
Cospicua, St.Margaret Square
Burmarrad, on the main road to St.Paul's Bay

Traffic Islands

Cricketers' Arms - Area about 1 Tomna
Corradino Hill - Area about 2 Tomnas
Qormi/Rabat Road - Area about 2½ Tomnas

They were laid out by the Public Works Department and planted with trees by this Section of the Department of Agriculture.

Other Gardens and Traffic Islands

A large number of different varieties of Spring flowering annuals was planted. They gave a fine display of colouring during their blooming season.

Several Public Gardens were used on various occasions for the holding of fairs and other entertainments.

Rubbish Baskets

Strong galvanized baskets for the throwing of waste paper, fruit peelings, etc. were fixed in convenient places in all Public Gardens.

Arbor Days

Arbor days were held in Zurrieq, Naxxar and Xemxija.

The trees were planted by school children. These interesting and instructive ceremonies were witnessed and deeply appreciated by crowds of people. The trees were then blessed by the Parish Priest of the respective village.

Honourable Ministers and Members of the Arbor Day Committee addressed the children and explained to them the importance and utility of trees and why trees should be appreciated and taken good care of, all the time.

Public../..

Public Plantations

The number of trees and shrubs existing in the Public Plantations throughout the Island is close on 50,000. Hoeing, staking, strutting, tying, pruning and irrigating the trees were carried out with constant attention.

The total number of trees and shrubs planted during the year was 4,643, including 1,913 planted in replacement of trees badly damaged by children, adults and motor vehicles.

Vandalism

The theft of and wilful damage to flowers and plants persists. Persons caught damaging trees were brought before the Court.

Buskett Gardens

The necessary maintenance of these very extensive gardens has received all possible attention. Oxalis has become troublesome in Winter and Spring and weeding had to be repeated several times.

The yield of citrus fruit was a poor one, both at Buskett and also at San Anton Gardens. This was due to factors:- (a) the previous year's crop was heavy and heavy crops are not expected every year; (b) it was due to the high temperature; the thermometer rising to 99 and 100°F, which was quite above the normal. The highest ever recorded was 103 degrees. The average temperature in July is usually 80/85 degrees.

The scorching sun and very hot winds caused shedding of the fruit of many trees; vines also suffered. A large number of the bunches of grapes withered and dried up.

Nurseries

The work in the nurseries demands and receives our best care and attention. These nurseries supply most of our requirements for the Public Gardens, Plantations, Strips, Traffic Islands and as well as meeting a part of the public needs.

As the../..

As the demand surpasses the supply importation has to be resorted to from nurseries in Sicily.

San Anton and Verdala Private Gardens

Both Gardens were maintained in their usual attractive condition. Improvements were made where needed. Ornamental and fruit trees were added and replaced wherever necessary.

The maintenance of Verdala Park was kept at a satisfactory standard including the thinning out of the surplus growth and the removal of dead and decayed wood on the numerous trees which embellish the area.

Afforestation

More trees were planted on the new site at the Cottonera Glacis.

The following table shows the sites, number and variety of trees that are growing in the afforested sites:-

Miziep	-	17,014 olives
Ballut	-	2,567 olives
Ta'Mrejnu	-	2,071 olives
		100 shrubs
Marfa	-	3,157 olives, Cupressus, oleanders
Armier	-	2,206 olives
Zabbar	-	1,649 olives, pinus and oleanders
Cottonera	-	380 olives

CHAPTER VII
MARKETING DIVISION

Introduction

The main activities of the Section comprise the following:-

1. The supervision of the wholesale Pitkali Markets
2. The running of the Agricultural Produce Inspection Shed.
3. The recommending of licences to the Department of Trade for the imports and exports of Agricultural Products.
4. The issuing of permits for the distribution of locally milled wheat offals and manure.
5. Control price inspection of fresh fruit, vegetables and meat at the retail level.
6. The collection of price statistics of Agricultural products and of general statistical data.

1. Vegetables

a) Potatoes are extensively grown in Malta to meet the local demand and for export.

Every year some 3,000 tons of seed potatoes chiefly Arran Banner, Alpha and some Craigs Royal are sown in Malta and Gozo in the months of November and December. By the following April the tubers mature and the export season commences.

In 1965, 7589 tons of Spring potatoes were exported. Of this quantity 3303 tons were exported to the United Kingdom, and 4286 tons to Holland.

The potatoes are exported in new jute bags but the Malta Union of Farmers again sent some consignments in 25 kilo wooden boxes packed in peat moss. The number of such boxes was 2547, equivalent to nearly 64 tons. To further encourage the use of potato export in boxes with peat moss, the Department paid a small incentive grant of 1/6 per box.

b) Onions are the second largest item of Agricultural export. During 1965, 1077 tons were exported. All these exports were sent to the United Kingdom.

The seed../..

The seed is almost wholly grown locally but foreign seed is also imported by the Government and sold to farmers.

Two main varieties of onions are grown, one to cater for the local market, the other mainly for export. The local market prefers the round pink type and the foreign market is generally met by exporting the round yellow flat top type. This variety is mainly grown on relatively dry land, mostly in the Eastern and Southern districts.

c) Tomatoes are an important item of agricultural interest. Progress in this line has been continuous. First production was directed towards satisfying local requirements. Next production was stepped up in order to meet the requirements of the local canning industry to do away with the imports of late and early tomatoes and lastly for export.

To encourage farmers to grow out-of-season tomatoes, the Department has given and is still giving loans and grants for the erection of glasshouses.

During the year under review no fresh tomatoes were imported. On the other hand, 7934 kilos of glasshouse tomatoes, valued at £4604, were exported to the United Kingdom. Besides the export of fresh tomatoes by air, 293,412 kilos of tomatoes purée valued at £20,232 were exported to United Kingdom, West Germany, West Africa and Italy.

Other Vegetables

d) Hardly any fresh vegetables are imported. All local requirements are met from the local production.

The principal vegetables grown are:- Artichokes, both Globed and Jerusalem, Broad Beans, Cabbages, Carrots, Cauliflowers, Cucumber, Kohlrabi, Lettuce, Long Marrow, Vegetable Marrow, Peas and Pumpkins.

Fruit

e) Fruit of all kinds is grown. The most important being apples, cherry plums, figs, melon water, melons winter, melons-sugar, oranges, peaches and strawberries.

However../..

However, the demand for fruit is so great that considerable quantities of fruit are imported every year mainly from Italy.

To lengthen the fruit season as much as possible and thus do away with at least a part of the imports, the Department has imported thousands of early and late fruit trees and is selling them to farmers at 2/6 each.

f) Cereals

Wheat, barley, vetches, forages, dry broad beans and locust beans are grown in relevant quantities but imports remain the chief source of supply.

2. Pitkali Marketing Centres

Agricultural products are mainly put on the local Market through Pitkali (Salesmen) and Co-operative Societies and sold by auction to retailers.

The number of pitkalis is 32 in Malta and 4 in Gozo.

The Pitkalis conduct their business in the following places, namely:-

Malta

7	established at	Birkirkara
5	"	" Marsa
2	"	" Mosta
5	"	" Rabat
3	"	" Zebbug
10	"	" Marina Valletta

Gozo

4 established at Victoria

With the exception of the pitkali at Marina, Valletta and at Victoria, Gozo pitkalis run their business under the supervision of a Departmental official appointed for the purpose.

3.(a) Exports in 1965

1. Potatoes are the chief agricultural produce exported.

the quantity../..

The quantity of Spring Potatoes exported during the year under review was 7,588 tons 13 cwts 2 qrs. The estimated value of these exports was £368,229.

2. Onions are also exported in considerable quantities. In 1965, 1077 tons 11cwts 2 qrs.of dry onions were exported valued at £28,227.

(b) Cut flowers, plant cuttings, seeds and bulbs

Cut flowers, plant cuttings, seeds and bulbs are also exported in considerable quamtities.

The value of these exports during 1965 amounted to £201,000.

The trade is in the hands of experienced businessmen and progress was maintained. There is every indication that before long the export of cut-flowers and plant cuttings will assume significant proportions.

4. Imports 1965

Steps are constantly being taken with a view to limiting the outflow of money on the purchase of imports.

The imports for 1965 were:-

(i) Fresh fruit is imported in large quantities. The weight of such imports in 1965 was 8,035,017 kilos valued at £517,588.

Eggs in shell

(ii) The importation of eggs in the shell was stopped as from March, 1965 and, with the exception of a small quantity during the Christmas period, no imports were allowed for period March/December.

The total quantity of eggs imported for 1965 was only 167,962 dozen valued £24,970 as compared with 949,583 dozen valued £103,159 in 1964.

The position of eggs in the shell has improved to such an extent that owners of poultry units are seeking foreign markets for their surplus eggs and during the year under review 48,650 dozen eggs were exported to Tripoli and there is every probability that the export of local eggs will continue to increase.

iii)../..

iii) Frozen Poultry Meat

The importation of frozen poultry was another important item tackled during the year under review.

In 1965, the importation of frozen poultry, which up to 1964, was unrestricted, was reduced by 30% for January/March quarter, 50% for the April/June quarter, 70% for the July/September quarter and 85% for the October/December quarter and stopped completely thereafter.

Total imports for 1965 were 304,758 kilos valued at £76,060 as compared with 409,000 kilos valued at £114,000 during 1964.

Some exports of killed and live poultry and day-old broilers were also made during the year under review. In fact 3,680 hens and 6,700 day-old chicks, hatched in Malta, were exported to Tripoli and Benghazi. There is every probability that this business will progress.

iv) Fodder is another item which is imported in large quantities. The value of fodder imports in 1965 was £1,776,112.

Here again 30 tons of fodder manufactured locally into balanced food have been exported to Tripoli and Benghazi. Expansion is also possible in this case.

v) In 1965, 2874 tons of Seed Potatoes were imported.

vi) Fertilizers are imported in sizeable quantities. The value of these imports in 1965 was £36,176.

5. Licences

All import and export licences regarding Agricultural products and other items of Agricultural interest are submitted with recommendation or otherwise to the Department of Trade.

6. Wheat Offals

Every Friday morning the Malta Millers Association furnishes the Department with information regarding the wheat offals supply position for the ensuing week.

After../..

After deducting Gozo's allocation the offals are distributed by means of permits to licensed retailers, registered breeders, manufacturers and co-operative societies in proportion to their requirements.

7. Inspection

Agricultural Inspectors regularly make inspections on retailers of fresh fruit and vegetables in various parts of the Island for the purpose of ensuring that the provisions of the Agricultural Produce (Marketing) Regulations 1952 are being complied with by retailers.

During 1965 eighteen summonses were made; twelve, concerning owners of poultry units for selling eggs by wholesale at more than the price fixed by the Director's Order No.3/64, five, for failing to affix price tags on eggs exposed for sale and one for failing to affix price tags for vegetables exposed for sale.

Thirteen retailers were fined £3 each whilst five cases are still pending before the Court.

Butcher shops are also visited for the purpose of checking the selling prices of fresh pork and beef.

8. Statistical Information

Inspectors also collect retail prices of fresh fruits, vegetables and meat for statistical and other purposes.

CHAPTER VIII
PLANT PROTECTION DIVISION

1. General

From the investigational point of view, the past year was devoted to consolidation trials rather than the testing out of entirely new chemicals. Control measures for all pests and diseases on record in the Maltese Islands were brought up to date and finalised from the recommendations point of view.

The Pesticides Act was passed through all stages in the House of Representatives, and the regulations were fully revised, and submitted to the Law Officers of the Crown for vetting. This set of regulations, which will be promelgated early in 1966, will finally bring the import, sale and use of Pesticides under comprehensive control.

A new Phytosanitary law to replace the old 1876 Ordinance was prepared, and submitted for the necessary vetting. The old ordinance was based on a set of conditions prevailing at the time, which has since become obsolete. Preparation of the relevant schedules was initiated late in 1965.

The Plant Pathologist and Entomologist, Mr L.J.Saliba, attended the 2nd International Pesticide Congress, held between March 15 and 19, in Naples, Italy. The topics discussed included Pesticide legislation, integration of chemical and Biological control and herbicides. Mr Saliba also attended the 2nd International Training Course on the use of Radioisotopes in Entomology, at the University of Florida, Gainsville, Florida, United States of America from October 4th to November 26th. The course was sponsored jointly by F.A.O. and I.A.E.A. As a result of new techniques learnt at the latter course, preliminary steps towards the formulation of a project to use radioisotopes for Insect eradication and control are being taken.

2. Sectional

(a) Laboratory

The purchase of new equipment has opened new fields in laboratory investigation and with the

acquisition../..

acquisition of the items purchased, or ordered, during 1965, the following additional techniques can now be operated:-

i) Work with hazardous chemicals - principally those in the chemosterilant range.
ii) Complete Culture facilities for fungi and bacteria.
iii) Analysis of pesticides for their ingredient - content.

The last-mentioned will be necessary for the operation of the new Pesticides Scheme, which should come into effect in 1966. The technique being used is Thin layer chromatography and preliminary trials have shown that the equipment on hand is sufficient for the analysis of large amounts. Whether the method will be sufficient for residue-analysis is still in doubt.

(b) Field Trials (general)

Two Rothamstead light-traps were ordered during the year in question. Preliminary field trials on Insect emergence are scheduled for the Spring of 1966 and it is hoped that the information obtained will, in time, lead to the development of Forecast Systems for Insect Pest Outbreaks.

Control Trials against Insect Pests and Plant Diseases included the following:-

i) Tussock Moth

Attacks on Apricot and Plum by the Tussock Moth (Orgyia trigotephras v. corsica Stgr.) were not as pronouced as in 1964. Dieldrin and Sevin, both in the Wettable Powder form, at 0.1% a.i., continued to give good to excellent results. As in 1964, the former chemical was only used on non-fruit-bearing trees.

ii) Potato Tuber Moth

Owing to the late Spring, Tuber Moth attacks were slight, compared to the previous year, and little spraying was effected. Dieldrin and Malathion continued to give good results.

iii)../..

iii) Wood-boring Insects

The population-density of adults of Cerambyx dux Fald. dropped noticeably from the 1964 level. Though no overall figures are available, only 200 adults could be collected during May, while the figure for the previous year was over 2000. Tests with attractants gave insignificant results, and the trial with chemosterilants had to be suspended owing to the non-arrival of laboratory for safe handling.

Surveys during the winter showed smaller signs of larval activity than usual and it is becoming increasingly evident that the trunk sprays applied over the last three years are slowly but surely eradicating the beetle. It is possible that eradication can be achieved without resorting to chemosterilants, and a full-scale campaign is being effected during the 1966 Spring.

Malathion Sprays against Zeuzera pyrina (the Leopard Moth) and Aldrin drenches against the Peach-tree borer, lapnodis tenebrionis, continued to give good results.

iv) Mediterranean Fruit Fly

No new trials were held this season, and Dieldrin, Dimethoate, and Fenthion continued to give good to excellent results.

v) Potato Blight

Occurrence on outdoor potato and tomato crops was again light to moderate. Copper Compounds, Zineb, Maneb, and various combinations of these kept all outbreaks under satisfactory control. There were several outbreaks on glasshouse tomatoes, but less than the previous season, and farmers and growers are now slowly realising that it is only by judicious combination of management and chemical application, rather than by the latter alone, that diseases control on glasshouse crops can become really effective.

vi) Leaf Mould

Leaf-Mould (Cladosporium fulvum) was again evident on glasshouse tomatoes. Apart from the

recognised../..

recognised spray - Captan or Nancozeb, both at 0.1% a.i., T.C.N.B. smokes were tried and controlled the diseases satisfactorily when still in the initial stages. Farmers were advised to:-

a) keep a daily watch for signs of mould, and at the first sign, remove all infested material and burn it.

b) Spray immediately.

c) keep up the sprays at 7-day intervals, removing all infested leaves found on daily examination.

Glasshouses which suffered heavy damage through leaf-mould were invariably those in which no attempt was made to destroy the disease from the start. In every such case, report arrived late, and infestation was too far advanced for any measures to have effect.

vii) Downy mildew of Onions

Preliminary trials with mancozeb against Downy mildew of Onions (Peronispora destructor) gave satisfactory results. Full-scale trials are being held during the 1966 season to compare costs with the two recommended chemicals - zineb and Maneb.

viii) Grape Berry Moths

Malathion and Dimethoate continued to give good to excellent results against the Grape Berry Moths (Polychrosis Viteana Clement). The programme has now been integrated with the sprays against Downy and Powdery Mildew, and a better all-round result is being achieved.

ix) Vine Mildews

A copper-sulphur mixture for control of both Downy mildew (Plasmopara Viticola) and Powdery mildew (Uncinula necator) was tested and gave promising results. This, however, has still to be confirmed.

x) Soil, Pests and Diseases

Aldrin and Dieldrin sprays applied before planting continued to give excellent results against cutworms, mole-crickets, and cockchafer grubs.

Vapam../..

Vapam applied as a soil drench again proved satisfactory in controlling the incidence of Verticillium wilt and root-knoth nematode in glasshouses.

xi) Weed Control

The demand for weed-killing work was again minimal, and so far, little has been done in the selective line.

(c) Advisory work

Talks on Plant Protection were given to farmers in various villages in Malta and Gozo during Extension Service meetings. These were devoted principally to topics of general nature. Talks were also given during the Sunday half-hour for farmers on Rediffusion. All talks and broadcasts were delivered by the Plant Pathologist and Entomologist.

Over 1,200 farmers and growers, including amateurs gardeners and householders, were visited at their premises by members of the Section's Staff, to give advice on Pest control. About 300 farmers, etc. brought diseased plant material into the laboratory for examination and diagnosis, and advice on control.

Advice was also given to Importers and retailers of Agricultural Pesticides on methods of labelling, container-size suitability of particular chemicals for use in Malta, and general recommendations. The seeking of advice from this particular section of the Community has now become regular, and co-operation between the Department and the local Pesticides trade is now practically complete.

(d) Phytosanitary branch

During 1965, the following parcels were examined for the presence of pests and diseases:-

A. Imports

Apples	141,517
Oranges	130,364
Bananas	36,763
Tangerines...	5,276
Lemons	390
Grape Fruit	2,623
Pears	20,287
Plums	660
Peaches	27,845
Cherries	140
Total Fruit	366,409

		366,409
Seed Potatoes	57,494	
Onions	12,371	
Garlic	11.175	
Swedes	370	
Parsnips	118	
Celery	100	
Total Vegetables	81,628	81,628
Flower bulbs	1,195	
Flower seeds	218	
Fresh Flowers	114	
Live Plants	5,973	
Cuttings	12,236	
Total ornamentals	19,736	19,736
Grand Total		466,773

B. Exports

Ware Potatoes	305,850
Onions	43,023
Fruit	48
Mushrooms	80
Broad Benas	15
Strawberries	111
Chrysanthemum cuttings ...	6,271
Carnation cuttings ...	956
Live Plants	97
Flower cuttings	2,669
Clover	1
Squill	119
Flower Seed	91
Vegetable Seeds	15
Tomato Seed	30
Vine Cuttings	4
	359,380

(e) Contract Spraying

The demand for services again declined slightly from last year. It had previously been estimated that by the end of 1965, Contract spraying on behalf of members of the public would have come to a quasi-complete stop. During 1965, the only Pest Control Company operating privately on an organised scale ceased its activities, and those members of the public still unable to perform their own spray-applications therefore continued to depend on the section.

Work../..

Work done during 1965 (a large proportion of which was in Departmental holdings) amounted to:-

Potatoes (Blight, Tuber moth) ...	404	tumoli
Tomatoes (various)	17	"
Vines	133	"
Vegetables (Miscellaneous) ...	106	"
Ornamentaks	25	"
Citrus(Scales, M.F.F.)	11,466	trees
Apples and Pears (Various) ...	5,915	"
Miscellaneous Fruit	926	"
Olives	12,410	"
Pruning (Various)	1,400	"

The amount of tree spraying is not as low in relation to last year as the figures appear to indicate. Campaigns for Apples and Pears, and for Citrus are now confined to a 2 to 3 spray programme compared to the 5 to 6 spray programme of recent years. The vast improvement in techniques over the last three years has resulted in a far better, and more economical, control of several Plant Pests and Diseases. The reduced amount of work performed on behalf of third parties reflects not only the success of the advisory campaign of the Section, but also the reduced cost of modern Pest control measures.

In addition to the above-detailed work, several grafting operations on Vines and Fruit-trees were carried out and about 500 miles of road-verges were sprayed with residual herbicides.

CHAPTER IX
GOVERNMENT FARM AND STOCK STATIONS DIVISION

Again this year, the Government Farm has been used as the "proving centre" by the Department of Agriculture for testing livestock, poultry, etc., and for carrying out field trials in crops.

The information which is accumulated from experiments and trials is passed to the Department for publication and practical demonstration on local farms.

Hundreds of local farmers and other visitors from abroad came to the Farm during the year under review to see for themselves the new techniques adopted and to improve their knowledge in the field of agriculture in general.

In Malta, the farming community has for many years looked to the Government Farm as the centre for their requirements, unfortunately, however, the demand is still much greater than the supply.

Cattle Section

The herd, which is predominantly of Friesian breed, consisted of 12 cows. It was recorded throughout the year and an amount of 11,000 gallons of milk was produced. The milk was sold to the Milk Marketing Undertaking.

Feeding Trial

The herd was divided into three separate yields. Each group was fed on different "Production Rations" as prepared by the Agricultural Chemist. This trial was still in progress at the time the report was written and consequently no results can be produced at this stage. All data in this connexion are being recorded and studied. Milk samples have been taken and tested for butter-fat content.

During the year three cows, one bull, six bull-calves and three heifer calves were sold.

Caprines../..

Caprines

The caprine section, though a small herd, was kept, has,to some extent, contributed its share to the maintenance of a good standard of the "Saanen" strain for cross breeding with the local goat and has so far proved popular with local herdsmen.

Privately-owned Malta goats are still being mated free of charge at the Farm.

Three goats, seventeen male-kids, one female and 1 Nanny-kid were sold during the year.

Pig Section

The aim of this section is to maintain a herd of Large White breed and sell its offspring to the local farmers for breeding purposes, the culling of stock for fattening and to carry out feeding trials for the production of good quality carcass pork for table use and for the production of bacon.

All stock was vaccinated against "Swine Fever" and "Swine Erysipelas" whilst local farmers are constantly encouraged to do likewise.

Replacements of breeding stock are selected from litters of 8 or over with good average weight and good conformation. The same procedure is also adopted with regard to stock offered for sale. Culling and litters of less than 8 are sold for fattening.

In order to maintain a good standard of Large White herd, a pedigree Large White boar and two in-pig gilts were imported from the United Kingdom. The "Bizbizija Bacon Pig Breeding Company" has also contributed to this aim by donating a Young Large White Boar, thus providing three different lines of blood in the herd at the Farm thus eliminating, as much as possible, any in-breeding in the stock there.

A Feeding Trial on a litter of 12 suckling pigs with Super Creep Feed was being carried out; no results are yet available.

Three../..

Three boars, six sows, ten gilts, eight young boars and 204 fatteners were sold to local breeders

A great effort was made to complete the approved structural alterations of the old piggery. One side of the old farrowing unit was completely rebuilt on modern lines and converted into an efficient farrowing unit combining a creep-feed space to each pen with a working passage within the building joining the different pens.

With this system it was proved that time and labour was saved whilst work was carried out more efficiently.

A farrowing Crate was installed in this unit and a "Service Crate" is also being used for mating purposes.

Poultry Section

The activities of this Section were substantially similar to those of the previous year, with the exception of the introduction of Japanese Quails and the re-introduction, after several years, of ducks.

The Hatchery was in operation during 9 months of the year and stopped only during the hot summer months. For the first time, day-old cross-bred Rhode Island Red X White Leghorns chicks were produced together with the old cross.

SALE OF CHICKS

Month	Eggs set	Hatched and Sold		Amount
		Pullets	Cockerels	
January	7224	1486	1520	£168. 0. 6d.
February	7872	1922	1906	£173. 3. 0d.
March	9912	2894	2996	£238. 0.10d.
April	6972	2096	2215	£157.16. 7d.
May	5664	1862	1709	£128.14. 1d.
June	1660	374	369	26. 8. 9d.
July/ October	-	-	-	-
November	2084	779	749	54.11. 1d.
December	6061	2176	2257	£155.16. 1d.
	47449	13589	13721	£1102.10s.11d.

All../..

All chicks were vaccinated against fowl-pox before delivery to the distributor.

Broilers

A broiler feeding trial was held in June. Four broiler strains namely: Cobbs, Arbor Acres, Chunkies and Rhode Island Reds X Light Sussex (which are hatched on the Farm), were kept. After twelve weeks they were killed and processed by Messrs Poultry Products Ltd.

Record of Trial

Variety	Chicks at Start	Mortality	Feed Consumed
Cobbs	50	16	250 rotoli
Arbor Acres	50	2	290 "
Chunkies	56	7	250 "
R.I.R. x L.S.	50	4	260 "

White Leghorns

Eight hundred (800) day-old pullets were purchased by tender in April.

Rearing of the chicks was not difficult and, during the first two months, the mortality was 48 chicks or 6%.

After brooding, the pullets were reared in houses with yards enclosed by 6ft. high wire netting. It was usual to allow access to the yards, day and night, during the summer months but this practice had to be discontinued as the pullets were very active and started to fly out.

When at point of lay 300 White Leghorn pullets were transferred to the wire floor unit and the rest on the deep litter and mated to Rhode Island Red cockerels. While fertility and hatchability were more than satisfactory, production was very mediocre, never above 50%.

Unlike the Rhode Island Red x Light Sussex, this cross does not produce sex-linked chicks and

therefore../..

therefore they had to be handled and sexed by the visual method. This was done by a trained sexer supplied by a private firm at the rate of 10/- per 100 chicks.

The average fertility and hatchability were 92% and 80% respectively.

Average Production:

Wire floor - 43.0%
Deep litter - 46.0%

Ducks

Two hundred (200) day-old Aylesbury ducklings arrived from the United Kingdom on the 2nd May.

Ducklings are reared without much difficulty and require very little attention. The mortality during the first two months was 2.5%.

The Aylesburys are a table breed and are not very good layers. However, they started to lay when five months' old. They were housed in a large run with sheds to give protection only from the north wind. Trees were planted to provide shade in summer but, until these could do so, some shade by other means had to be provided.

Incubation was disappointing. The fertility was not very good and there was embryo mortality at an early stage of development.

Hatching Result

Eggs Set	Infertile		Hatched		Dead Embryos
	No.	%	No.	%	
645	164	28%	104	17.7%	377

Japanese Quails

On the 22nd April, 18 and later a 100 quails were brought locally for rearing purposes. They were housed in single cages. The hens were released for an

hour../..

hour with the cock every other day for fertilisation. As soon as they had settled down, the eggs were collected and a ten-day collection was set. Hatchability was very bad and this was thought to be due to the method of mating. They were transferred to a large wire cage and mated, one cock to every two hens. A breeding ration was formulated and a small electric incubator was purchased. However, incubation proved unsuccessful.

Hatching Results

Eggs Set	Infertiles	Hatched	Dead in shell
412	289	30	93

Laying Battery

Last year's feeding trial, when Aspirin was used for the first time, was found to be inconclusive.

The trial was repeated this year with six different hybrid varieties namely: Babcocks, Shavers, Sykes, Double A, Thornbers and Honnegers.

A record of the food consumed, Standard and with Aspirin, number of eggs laid, mortality and egg-size is being kept.

Rabbits

Two Flemish Giant does and two bucks were imported from Denmark to introduce new blood into the strain at the Rabbitry at the Farm.

These rabbits were of the continental type and weighed about 16 lbs. on arrival.

It was observed, however, that they were not in perfect condition and all were affected with hock sores.

A buck died soon after arrival and all attempts to obtain a litter from the does was in vain.

Last../..

Last year's feeding trials were continued

The public has shown its appreciation of the Rabbit Stud Centre by frequently repeated visits. At this Centre private does, suffering from vent disease, are kept for treatment until cured and mated.

Does and bucks of both breeds were sold to registered buyers, whilst the demand for the Flemish Giant breed was heavier than for the New Zealand White.

Sale of Rabbits

Breed	Bucks	Does
Flemish Giant	47	20
New Zealand White	192	201

Growing of Carnations

Following the previous year's experience in the cultivation of carnations in a polythene-house, six varieties of Carnations were imported from France, viz:- Arthur, Carry, Dazzler, Crowley, Linda and Florence.

On arrival these rooted cuttings were put in pots and each variety transplanted in separate rows. Two-hundred and seventy (270) plants were sown in each bed at six (6) inch intervals centre to centre.

Records of each variety were kept. The following results were obtained during the flowering season:-

Variety	No. of plants	Blooms cut	Average of blooms per plant
Arthur	270	1888	7.0
Carry	270	2054	7.6.
Dazzler	270	1427	5.3
Crowley	270	2099	7.7
Linda	270	1976	7.3
Florence	270	2132	7.9

Cuttings../..

Cuttings from these varieties were propagated at the Farm. These together with other varieties, also imported from France, were prepared for next year.

Hundreds of locally propagated cuttings were sold to local growers.

Timber glasshouses, which were constructed by the farm carpenters are now being used in lieu of the old polythene house. They proved satisfactory.

Agricultural School

The first group of students, attending the Agricultural School terminated their course by the end of the scholastic year.

The course having proved satisfactory, a further group of students was admitted this year for the second agricultural course, to be run at the Farm.

CHAPTER X
VITICULTURE AND OENOLOGY DIVISION

Viticulture

The programme of expansion of viticulture entered into its second year with the following two important schemes well under way, viz:-

(a) Experimental vineyards
(b) Rubble Walls

Under the experimental vineyards scheme, three more substations were set up in Malta in the main vine-growing areas, making a total of six substations. Ruggeri 140 and Paulsen 1103 rootstock was utilised in all three substations in order to check its suitability to the different types of soil. Both these hybrids at Buskett Station have done extremely well, although the "Vitis Champinii" hybrids imported recently from the United States of America seems to be extremely promising and will be experimented with later on.

Another twenty grape-farmers benefited from the rubble wall scheme in Malta, making the total so far available amounting to forty. Unfortunately, the majority of such grape farmers do not take sufficient care of the rootlings planted along the rubble walls with the result that a certain percentage is bound to be lost. Grape-farmers are therefore being urged to pay particular attention to such rootstock.

Oenology

The second Wine Tasting Session was held at Buskett Station during the year in question. The Honourable Minister of Agriculture presided togehter with the Director of Agriculture. The session was well attended by representatives of the main local wine producing concerns and the results, based on data provided by the vintners themselves, was most encouraging in respect of vintage wines produced at the Station. It is to be argued that this practice of

holding../..

holding wine tasting sessions be persisted into since it appears to be the only way to compare local with imported wines.

F.A.O. Seminar

An F.A.O. seminar on vines and wines was held at Bucharest, Romania, in September/October 1965. Dr.G.J.Peralta attended. Amongst the guest speakers were Prof.H.P.Olmo of California, Prof.Branas of Montpellier, Prof.Costantinescu of Romania and many other prominent viticulturists and oenologists. Malta's contribution towards this seminar was well appreciated by the representatives of the twenty nations present and feelers were put out in an attempt to set up a Mediterranean Grape and Wine Committee, including wine-producing countries bordering on the Mediterranean. Nothing definite materialised however.

CHAPTER XI
LAND AND WATER USE DIVISION

During the year the section under the administration of the Agricultural Chemist consolidated its activities with particular reference to fertiliser experiments, soil preservation and agricultural land registration.

Advisory activities

The Agricultural Chemist took an active part in the farmers meetings organised by the Extension Service and delivered lectures on various subjects ranging from cow nutrition to mulching with black polythene. The Agricultural Chemist participated in the organisation of the agricultural school and delivered lessons on animal nutrition and on Soils and Fertilisers.

The Agricultural Chemist gave advice on the agricultural aspects of sewage reclamation to the inter-departmental committee on this subject. The following crop pattern for the possible sewage reclamation was adopted by the committee:-

PERIOD	CROP PATTERN		
	Fully Irrigated	Semi-Irrigated	Unirrigated
January-February	-	Spring Crop	Winter Crop
March-May	Summer Crop	Spring Crop	-
June-August	Summer Crop	-	-
September-October	Summer Crop	Autumn Crop	-
November-December	-	Autumn Crop	Winter Crop

Research Activities

The two year field programme on the use of fertilisers was carefully analysed and the main

conclusions../..

conclusions were as follows:-

(i) Dry land receiving the usual 5 tons/tumolo of farming and manure every four years does not give significantly higher yields on the addition of artificial fertilisers. Under such conditions water is the limiting factor.

(ii) On irrigated land receiving farmyard manure, artificial fertilisers could increase yields by some 16%.

(iii) Further investigations necessitated laboratory facilities. Trace element deficiencies and sulphur requirements could only be studied when laboratory facilities became available.

The mulching experiments with black polythene were continued during the year and the previous year's results were further confirmed. These results indicated that mulching with black polythene was an economic proposition in the cultivation of eggplants, peppers and strawberries.

Legal and administrative Registration.

(i) Agricultural Land Registration

	1963	1964	1965
No..of Land Transfers	694	437	510
No.of farmers who transferred,bequeathed or sold their lands	632	379	433
No. of farmers who received, inherited or purchased lands	687	429	512

Transfers of land are the results of various factors such as deaths, emigration, abandonment of land for more remunerative work, infirmity and erection of factories on agricultural land.

Fertile../..

Fertile Soil Preservation

Comparative figures for building notices for the removal of soil from building sites, and amount of soil removed from private and government sources for the last three years are as follows:-

	1963	1964	1965
Building notices	554	456	591
Cubic yards of soil removed from private sources	58,893	44,038	49,533
Cubic yards of soil removed from government sources	50,320	62,860	59,110

The Animal Food and Feedingstuff Act was approved by the House of Representatives but inadequate laboratory facilities delayed its implementation.

Other activities

During the year the Agricultural Chemist represented the Maltese Government at the International Symposium held in Rome on "The Use of Saline for Irrigation" organised by the World Academy of Arts and Science. Later in the year the Agricultural Chemist returned to Rome as part of the Malta delegation at the F.A.O. Bi-annual General Conference.

CHAPTER XII
GOZO DIVISION

A. Introduction

It is estimated that over 75% of the population of Gozo make their living out of the soil and from the breeding of livestock. The area of cultivable land in Gozo is about 26,314 tumoli out of which about 533 tumoli are under irrigation.

Most of the agricultural products in Gozo are sent to Malta after satisfying the local demand.

Satisfactory progress was made during the year in all agricultural sections in Gozo.

B. Climate

The total amount of rainfall during the year was somewhat better than last year's totalling an average of 29.71 inches.

Strong winds were experienced during the first months of the year.

Hereunder is a table showing the amount of rainfall recorded in different districts throughout the island during the last four years.

Average Monthly Rainfall

Month	1962	1963	1964	1965
January	1.50	2.99	3.21	3.64
February	3.18	3.60	1.67	7.11
March	2.35	1.09	1.07	1.05
April	.52	.35	1.01	.66
May	Nil	.29	.10	Nil
June	Nil	Nil	1.40	Nil
July	Nil	Nil	Nil	Nil
August	Nil	Nil	Nil	Nil
September	.59	.93	1.02	Nil
October	6.41	3.64	2.38	7.55
November	1.99	.18	1.06	8.61
December	2.98	2.73	9.62	1.09
Total	19.52	15.80	28.82	29.71

C ../..

C. Horticulture

Experiments on various Horticultural Crops, which were started the previous year, were continued.

Experiments were carried out with:-

1. Carnations under glass and in the open.
2. Roses under Polythene.
3. Tomatoes under glass and in the open.
4. Vine growing under Polythene.
5. Onions - different varieties.
6. Strawberries under Polythene and in the open.

Good and promising results were achieved. It is intended to carry out further trials.

About 40 glasshouses were to be found by the end of 1965 in Gozo; most of which were built under the Government Loans and Grants Scheme.

This year a limited quantity of tomatoes from glasshouses was exported for the first time to the United Kingdom. It is hoped that greater quantities will be exported in the future.

Drainage works were carried out in the two glasshouses at Villa Rundle. Another glasshouse 49' X 24' was constructed at Villa Rundle and planted with carnations.

D. Government Nurseries

1. Public Gardens - Victoria

These gardens which cover an area of about 4 acres were daily attended to all the year round.

The gardens are the only recreational grounds in Victoria. Flower beds made a nice display of colour with different varieties of flowers both annual and biennial.

The gardens are visited all the year round by the general public especially on Saturday afternoons, Sundays and Public holidays. Fairs, shows, etc. are also held in these gardens from time to time.

It is../..

It is here also that several thousands of flowering plants are propagated and raised every year, either for use by the Department or to be sold to the public.

New strains of gladioli, dahlias and other bulbs were introduced.

2. Ornamental Tree Nurseries at Kerċem and Tad-Dawwara, Victoria.

These Nurseries are the only source in Gozo where public demand for ornamental plants, flowering plants, etc. is met. Constant care and attention was given to these Nurseries and several additions of new trees and shrubs were made.

These Nurseries are becoming more and more the Mecca of tourists and other visitors to Gozo. Often, advice is sought and given by the Staff. The public may visit these Nurseries by request.

During this year no fewer than 18,000 ornamental trees, shrubs and other plants were propagated in the open or in pots.

Another "Automatic Mist Propagation House" was constructed at "Tad-Dawwara Nursery" and several experiments with different kinds of cuttings for rooting are in progress. "Agriperlite" in which cuttings were rooted, was found very satisfactory.

Experiments were carried out for the first time with the grafting of Oleander. Red flowering oleanders are much slower growing than the white flowering trees. Therefore, white flowering plants are being grafted with red flowering scions and much time is thus saved.

F. Fruit Nurseries

One of the main activities of the Agriculture Divisions in Gozo, during this year, was the establishment of a new Fruit Nursery.

About 4 acres of land were acquired and put under fruit trees.

The site../..

The site itself is in a central position on the main road from Mgarr to Victoria. Great work was required to turn the lands into a suitable Nursery. About 1000 feet of rubble walls were repaired. 50 truckloads of fertile soil were dumped to level a part of the site. All boundary walls were fenced with barbed wire and wire netting. A water reservoir, with a capacity of 50,000 gallons of water, was constructed at the highest point of the site. Water channels were laid down in all fields and every foot of ground can be irrigated from the reservoir by gravity.

About 11,000 rootstock seedlings were planted this year. About 2 tumoli of land was sown with almond seeds for propagation.

It is felt that these Nurseries will in time be of great service to the Fruit Industry.

The number of fruit trees, sold during the year, was the following:-

Peaches	579	Apricots	14
Pears	340	Pomegranates	54
Apples	177	Figs	3
Loquats	120	Black Mulberries	6
Plums and Prunes	277	Cherries	9
Grafted Vines	38	Olives	3
Kaki	15	Lemons	29
Tangerines	1	Orange	19

to a total of 1,684 trees

F. Public Plantations

All ornamental and shade-giving trees planted along public roads and other open spaces, were duly attended to as regards hoeing, strutting, watering and pruning as necessary.

Every endeavour was made to add more trees in newly widened roads, flower beds and other open spaces where space was provided.

A good../..

A good number of new flower beds was constructed along roads which were all planted with various shrubs.

The total number of trees and shrubs added or replaced where missing were the following:-

Number of trees added	1513
" " shrubs "	2024
" " trees replaced ...	349
" " shrubs " ...	476
	4362

Trees, newly planted or replaced, comprised different kinds such as Ficus, Tamarix, Ailanthus, Oleander, Morus, Jacaranda, Schinus, Pinus, Olives, Carobs, Mulberries, etc.

It is still sorrowful to see so much willful damage to a good number of these trees every year.

G. Afforestation

About 30 tumoli of Government land were acquired at Mgarr where a picturesque grove was laid down. The grove itself, situated on Chambrai hillside, is visible from Mgarr and will catch the eye of many visitors to Gozo. On this site no fewer than 773 trees, comprising olives, carobs, almonds, pines were planted.

It is estimated that, so far, about 24 acres of reclaimed land was put under afforestation comprising 6000 trees. Works on this Scheme continues. Several sites of Government Waste-land have been selected and are being prepared for planting.

Lands at "Ta' Blankas" have already been prepared and are ready for planting.

The main scopes and advantages of afforestation are:-

1. To reclaim barren land.
2. To prevent the surface run off water from finding its way into the sea, thus increasing the water storage.

3. To../..

3. To transform the desolate aspects of our countryside into evergreen and attractive scenery.

4. To have a supply of olives and carobs for local consumption.

H. Animal Health and Husbandry

T.B. and Brucellosis tests under the Disease Eradication Scheme were continued during the year.

The livestock, vaccinated during the year, was the following:-

Swine

Swine Fever	-	1093 head
Swine Erysipelas	-	1370 "
Anaemia Injections		1237 "

Bovines

T.B.	-	3001 head
Brucellosis(Ring test samples)	-	717 "
Number of herdsmen		570 "

Caprines

Brucellosis(Ring test samples)	-	487
Blood samples	-	1112
Number of Goats	-	193
Number of Kids	-	1843

Poultry

Fowl Pox	-	30,375 head
Newcastle Disease	-	24,800 "

Constant advice was given to farmers about disease precaution by way of vaccination.

Many livestock breeders availed themselves of the Government Free Stud Service at the Government Livestock Centre.

Good../..

Good stud livestock is available at the Centre.

In November 1965 a Pedigree Stud Boar was presented to this Centre by the Malta Bacon Company Ltd.

I. Civil Abattoir

The following table shows the number and kinds of Livestock slaughtered at the Abattoir within and out of visit during the year:-

Livestock	Within Visit	Out of Visit
Cattle	628	63
Pigs	2503	50
Sheep	95	101
Lambs	888	44
Goats	30	129
Kids	280	18
Equines	1	8

J. Crops

The crops which are grown in Gozo are cereals in the form of wheat and barley, "Sulla" and potatoes.

Experiments were laid down this year to try new varieties of wheat and barley as well as "Sulla".

Several crops were grown for consumption by Livestock at the Centre on lands belonging to the Department and adjoining the Livestock Centre.

The production of such crops consisted of:-

Lucerne	-	250 qantars
Clover (Dry)	-	65 hmiel
Mangolds	-	150 qantars

K. Viticulture

During the last years the area under vine increased considerably.

The following are the figures for vine rootstock sold during the last four years:-

1961	1962	1963	1964	1965
43,800	55,860	19,281	12,680	13,816

Since../..

Since the Wine Control Regulations came into effect, quality and standard of local wines have improved. The drive to increase exports of wines to the Continent is continuing.

The enforcement of those Regulations has always been an intense activity of the Gozo Branch.

The following data, relating to these Regulations, were collected during this year's Vintage Season:-

Number of Licensed Commercial Vintners		66
Total No. of grapes pressed -	Local	12263.27 rot.
	Malta	454.42 "
	Total	12717.69 "
Wine produced	-	21719 barrels
Must	-	4245 "
Wine, shipped to Malta in Barrels	-	15835 Maltese barrels
Grapes sent to Malta for Wine Making	-	2352.26 qtrs.

The experimental Vineyard which was laid down in 1963 was taken good care of. A further 1½ tumoli of land was put under American Mother Plants of "Ruggieri 140" a variety free from Rosset and suitable for calcareous soils.

Another two experimental vineyards were established on privately owned farms in different districts in Gozo covering an area of 1 tumolo each.

The aim of these experiments is to demonstrate to the farmers about new varieties.

L. Plant Pathology

The team of farm operatives of this section was busy throughout the whole year.

Farmers have realized the benefit of spraying against pests and diseases as can be seen from the following comments:-

1. Trees../..

1. Trees

About 863 Citrus trees were treated against Iceria, Scale Insects, Aphids and Mediterranean Fruit Fly. Some 3000 ornamental trees and decorative plants were treated against Aphids and other diseases.

2. About 70 tumoli of vines were treated against Powdery Mildew and about 35 tumoli of potatoes, sprayed against Blight.

M. Government Livestock Centre

This Centre continues to be a great asset to our farmers.

Good Stud Livestock is always provided at this Centre and farmers make a good use of this free servicing.

An interesting experiment with local sheep was in its fourth year. The main scope is to increase the milk yield from local sheep by means of "selective breeding". Milk from each sheep is recorded individually as well as the lamb yield.

Very good and promising results were obtained. An average figure of 77 gallons of milk per ewe a year in comparison with the initial 55 gallons on the average was achieved. An average of 100 gallons in 2-3 years' time is anticipated if the same progress in yield is maintained.

The following are the heads of livestock kept at the Centre during 1965:-

Swine	-	2 boars	
Bovines	-	2 bulls	
Ovines	-	20 sheep	
	-	1 ram	
	-	21 lambs	
Caprines	-	2 billy goats	
Poultry	-	140	
Rabbits Flemish Giant	16 Does	16 Bucks	
Local	15 "	8 "	
N.Z.W.	20 "	27 "	
Sucklings	62		

During../..

During the year the sales from the Centre included:-

Sale of eggs to Medical and Health Department	-	10,271
Sale of Cheeselets (Fresh)	-	14,732
" " " (Dry)	-	213 rotoli
" " Bucks	-	127
" " Does	-	107
" " Calves	-	2
" " Kids	-	1
" " Rams	-	15
" " Sheep	-	8
" " Wool	-	69 rotoli

The number of services were the following:-

Cows	282	Sows	163
Sheep	74	Goats	168
	Rabbits	378	

N. Financial Assistance to Farmers

Financial assistance to farmers by way of loans and grants was continued.

One Poultry Unit, a glasshouse and a pig unit were erected under the Loans and Grants Scheme.

In addition, three farmers were given grants and loans to repair water reservoirs whilst four farmers built new water reservoirs under the same Scheme. One farmer was given a grant and a loan to install water main on his farm.

O. Extension Service

Nowadays, more than ever before, farmers are realizing the necessity of asking for advice on the several problems they have to face.

With the meagre staff in the Extension Service in Gozo, this Section is trying as much as it can to place its whole activities to the benefit of the farmer. Experiments are carried out, from time to time, and farmers have the chance to see for themselves the improved yields from new varieties of cows and better management.

Glasshouses../..

Glasshouses and Poultry Units were looked after, in particular, one Poultry Unit of 10,000 birds kept in a Modern Battery.

A lot of seeds such as Sulla, Water Melons, Onions, etc. were distributed free to farmers throughout the year.

P. Fertile Soil (Prevention Ordinance) 1935

Several rocky sites were reclaimed as a result of the provisions of this legislation.

Every measure was taken to see that these Regulations are adhered to.

The following data relating to the above-mentioned Ordinance, was collected during the year:-

Notices of soil received	-	43
Inspections carried out	-	161
Reports of removal of soil	-	69
Reports where no soil existed	-	18
Fertile soil removed by Private people	-	6456 c.yds.
Fertile soil removed P.W.D.	-	16,300
		22,756 c.yds.

The soil saved from new private building sites was utilized for:-

1. Construction of back gardens
2. Reclamation of lands at back of buildings
3. Reclamation of other fields
4. Filling with soil new constructed flower beds.

Q. Annual Agricultural Show

This traditional event was again held in 1965 on its traditional date: the 15th of August.

The Show comprised Agricultural, Horticultural, Industrial and Livestock Sections.

This year's show was not less successful than the previous ones. Both the number and the high standard of the exhibits were noteworthy.

The number../..

The number of entries for the 1965 Show was 2316 distributed as follows:-

Equines	75	Fruit	255
Bovines	42	Vegetables	429
Caprines	140	Cereals	456
Swine	15	Goldfish	23
Rabbits	100	Birds	95
Fowls	224	Local Industry	62
Wines, Eggs & Cheese	204	Cott on Work	181
		Plants in Pots	15

CHAPTER XIII

CO-OPERATIVES DIVISION

The Co-operative Section is entrusted with the registration and supervision of Co-operative societies as required by the Co-operative Societies Ordinance and Regulations of 1946. The main duty of the co-operative Section at present is the auditing of the Societies accounts. Direct supervision is continually exercised with a view to ascertaining that registered societies are managed in conformity with the Ordinance and the Regulations.

Two new societies were registered in 1965.

Progress was made in the auditing of the accounts of co-operative societies. The current auditing of societies in operation was kept up-to-date and considerable progress was made in the audit of the backlog.

The societies engaged in marketing agricultural products are the following:-

1	established at	B'Kara
1	"	" Marsa
1	"	" Rabat
1	"	" Zebbug
1	"	" Siggiewi
1	"	" Valletta

It is estimated that through these stalls about 23% of the total sales of agricultural products are made.

CHAPTER XIV
FISHERIES DIVISION

Introduction

Efforts to help in every possible way the industry towards amelioration of conditions both at the productive and the development stages were kept up throughout the year under review. All administrative and technical services were geared towards achieving better results in the interest of the country's economy. That of containing the position were arrived at so far in that the number of fisheries operators did not decrease and the distribution organisation did not deteriorate. Much has still to be done to arrive at the point where the Islands will have no necessity to depend on foreign importations to meet the demand for fish but, despite the difficulties attendant on the natural setbacks facing our fishing industry in the form of the dubious productive potential of our waters for increase in the "resident" fish population, the further exploitation of our pelagic fisheries appears to hold out hope of some success even though gradual and far from spectacular.

The Catch

The unfavourable weather conditions during the winter months were this year responsible for a slight decrease in the catch over that of the previous year. This is illustrated by the fact that, whilst the decrease for the whole year was of 88,303 rotoli, or just over 70 tons, that for the January/April period accounted for nearly 54 tons or just over 77% of the whole figure.

The largest catches were, as is usual, made during the Summer/Autumn season, that is from September to December, when the Lampuki (Coryphoena Hippurus) and the Fanfri (Naucrates Ductor) are plentiful.

It is../..

It is unfortunate that the catches in December were mostly made by trolling and surface lines, as the weather was rarely suitable for net encircling during that month. Had this been possible, expert fishermen maintain that the landings would have been a record. Indeed, due to the heavy concentrations of fish under the floats, in the hope that there would be a lull in the weather, allowing for net operations, the majority of fishermen did not, as customary, take in their floats and attachments. This resulted in heavy losses and practically everything was swept away by the heavy seas, without any catch being made.

Table No. 17 is a statement giving the details, month by month, of the landings of both locally caught and imported fresh fish, as against those of the previous year. This statement furnishes also all the information regarding first-sale and retail prices.

As regards locally caught fish, it will be noted that, despite the reduction in the overall amount of landings, both the wholesale and the retail takings show an appreciable increase. This is due, besides to the rise in the price of fish in sympathy with that of other commodities, to the catches of swordfish and other long line species for which there is a demand far in excess of the supply.

The total landings for each year, with the relative wholesale value, in respect of the last ten years, are given in Table No. 16 . It will be perceived from this statement that fresh fish imports have in the last decade fallen from over 2,000 cwts. to just under 500 cwts. This is not, as it is held in certain quarters, due to restrictions imposed on the landings of foreign fish. In fact, there are no restrictions whatsoever beyond the allocation of priority of disposal to local catches. This reduction in importations is attributable to the satiation, however slight, of the local demand by the increase in landings and to the more lucrative market in Italy,

where../..

where relatively the position is similar to ours, in that the demand exceeds the supply by a very long stretch.

A list of catches by species, month by month, is given in Table No. 17 from which it will be seen that Lampuki have retained numerical superiority as an individual specie with 487,626 rtal, followed by Vopi (Boops Boops), with 326,428 rtal, which is a semi-pelagic fish caught throughout the year. Next in abundance comes the Sawrella (Trachurus Mediterraneus) with 192,587 rotoli. This is followed by the Arsnella (Maena Smaris) which forms part of the trawl hauls during the winter and of pot catches during the rest of the year.

A relevant increase has been made this year in the catches of the blue fin tuna (Thunnus thynnus) by the St.Paul's Bay Tuna tangle net fisheries, which, whilst last year it brought in 6,619 rotoli, in the course of the year under review, it accounted for 18,604 rotoli, a very handsome addition, which might, if the technique continues to be developed at this rate, account for a considerable fillip to the industry. This technique registered this remarkable improvement through the use of modern synthetic fibre netting, which gave a very good performance in durability and resistance in comparison with the relatively feeble qualities of the conventional netting which had previously been in use in this type of fishery.

The swordfish fisheries, which had given rise to hopes for a substantial increase in landings, did not substantiate predictions this year; so much so that, whilst in 1964, 60,640 rotoli were caught by a few operators, this year's landings consisted of 64,917 rotoli, a bare increase of just over 4,000 rotoli, against quite an increase in the number of fishermen engaging in this fishery. These additional swordfish fishermen turned over to this technique from their usual lampara activities in the hope of making a greater return from a relatively smaller investment, with the result that they were badly disappointed.

It../..

It is possible that this discouraging performance may have been due to a bad season, as happens with other species, now and again, for it is very unlikely that, with the swordfish long lining only a year or two old, overfishing was the cause of this poor result. At least, it is contended by Italian operators in the same trade that depletion of stocks should be quite a long way off.

The other numerous species shown in Table No.17 are made up mostly of choice varieties, which, though caught in small quantities, fetch a good price from the fastidious section of the consuming public.

Loans and Grants

With the aim of bolstering up the industry and encouraging operators and their children to remain in it rather than opt for easier occupations on land or resorting to emigration, the scheme of financial assistance to fishermen continued to be applied with vigour during the year under report.

In the course of 1965, £20,681 were awarded in the form of Loans and Grants to 38 fishermen. This assistance was given for the construction of 2 fishing boats of 30 feet, for the purchase of fishing equipment by 13 fishermen, for the replacement of 11 petrol/paraffin by diesel engines and for the construction of smaller craft and other purposes to 12 other operators. The details feature in Table No. 19.

The Fishing Equipment Supply Service

This service which consists in the importation and the sale of modern fishing equipment at cost or at subsidised prices has continued to enjoy great popularity with the fishermen. At times, certain types of material are acquired at the request of individual operators and, at others, bulk orders are made to cater for specific seasons or fishing techniques. So far this service can boast of comprising the whole fishing

community../..

community of these Islands to discard the use of conventional fibres and to resort to synthetic material which has given proof of better dependability, durability and performance. These synthetic fibres are now in use in all types of fisheries in Malta and Gozo, be it for nets, cordages or other equipment. The Gear section also, experimented in the past year, with the introduction of a liquid gas lampara 16,000 candle power lamp, which might, if it is found to be relatively cheaper to operate, do away with the conventional petroleum lamp which is more cumbersome to handle and difficult to operate when even the slightest breeze prevails.

A statement showing the sales, month by month, and the purchases made during 1965, under the different items is given in Table No. 18.

Vocational Training and Propaganda

Individual and class instruction in elements of navigation and in the care of mechanical deck machinery was imparted to the sons of fishermen who opted for this facility; the publication of the monthly Fishermen's folio "Is-Sajd" was made available to the fishing community and other enthusiasts on our mailing list; in addition, Sunday Fishermen's broadcasts were held over the local relay system every week, disseminating, along with the monthly folio, useful information to the fishing community.

Research

In collaboration with the Royal University of Malta, the Section was host to the Mediterranean Association of Marine Biology and Oceanography which held its first course for international students in Malta in July 1965, making use of a wet room and a lecture room at the Fisheries Office and also of the Fisheries Experimental Training Vessel Hannibal.

A group of British scientists, led by Dr.J.M.Lythgoe and known as the Vision Group of the

Department of Scientific and Industrial Research of the United Kingdom, established an under-water observation post off Wied iz-Zurrieq for studies on visibility, size and distance judgements of under-water objects. These observations were published, after the holding of a Symposium in London, in a booklet entitled "Malta '65".

Three fishing experts from Taiwan, made available by the Government of Nationalist China to study the possibility of increasing the fisheries potential in Malta, with particular reference to tuna long-lining, spent the latter part of November and the whole of December working with members of the Section. They began their survey by studying the local fishing methods and techniques, looking into the possibility of introducing equipment not in use in these Islands and proceeded to armour a small tuna long line which they subsequently used on a fishing trip in the "Hannibal". The unsuitable weather conditions for this type of fishery interfered with further experiments and the mission terminated its assignment with promises of further contact on the joint exercise.

Development Works

During the year under review, apart from normal maintenance works carried out in all the creeks and anchorages along the coasts of Malta and Gozo from which fishermen operate, a number of major works were carried out in the main fishing harbours in Malta and Gozo.

In Marsaxlokk, as the first phase of the project in the current Five Year Plan for converting this the most important and sheltered fishing harbour in these Islands into a modern fishing port, equipped with all amenities, the widening of the moles from 30 to 80 feet along a stretch of 3,000 feet, was at the end of the year under review, in the final stages of completion. This area allows for the dry-berthing of all the craft in this fishing village besides for net mending, drying and all other operations connected with the daily activities of the fishermen.

At Wied../..

At Wied iz-Zurrieq mooring and berthing facilities were increased and a mole was constructed at the outer end of the creek to allow for the mooring of larger craft, which would interfere with the berthing of smaller boats in the inner side of the anchorage.

The Public Works Department constructed a number of slipways and moles along the whole of St.Paul's Bay, making it much easier for the fishermen in that area to operate in comfort; the boat camber was dredged and two large protective arms, one at Bognor Beach and the other at "Vecca", were being constructed at a rapid pace throughout the last two months of the year under report.

A large dry berthing and net mending area together with 150 feet of sea-wall were constructed at St.Julians, providing the facility to the fisherman of that village to moor their boats along the sea-wall and to stretch their netting on the area in preference to hanging them on the railings surrounding Spinola Bay on one side.

In Gozo, two large net mending and dry berthing area were concreted, one at Mgarr and the other at Xlendi, where a slipway for small boats was also constructed. Dredging of the approaches to slipways in both fishing villages was also carried out and a mole at the entrance to Xlendi cave was also constructed.

Foreign Contacts

To keep abreast with developments abroad and adapt what can be used to our own requirements, no chance was lost to keep contact with progressive countries, through correspondence and other avenues but mainly through the Fisheries Division of the Food and Agriculture Organisation.

The Chief Fisheries Officer attended the eighth session of the General Fisheries Council of the Mediterranean held in Rome in May, 1965. Along with

the../..

the Director, the Chief Fisheries Officer also attended the Thirteenth Session of the F.A.O. General Conference in November of the same year.

A Senior Fisheries Officer (Mr C.Attard) and a Fisheries Officer (Mr A.Grech) attended a 6-week study course in Israel in Fishery Matters which began in mid-December of the year under review and the Vocational Training Officer (Mr J.Barbara) attended a meeting of the U.N.E.S.C.O. Inter-Governmental Oceanographic Commission in Split (Yugoslavia) in December, 1965.

TABLE 1

WEIGHTS AND MEASURES

1. WEIGHTS

MALTESE	ENGLISH	METRIC
1 Ratal	1.75 lbs	.79 kg.
1 Wizna	8.75 lbs	3.97 kg.
1 Qantar	175.00 lbs	79.38 kg.
1280 Rtal	2240.00 lbs	1016.00 kg.

2. MEASURES OF CAPACITY

1 Mondello	.66 gallons	3.03 litres
1 Garra	2.38 gallons	10.80 litres
1 Tomna	4.00 gallons	18.18 litres
1 Barile	9.50 gallons	43.19 litres
1 Salma	64.00 gallons	290.88 litres

3. MEASURE OF LENGTH

1 pulzier	.86 inches	21.83 cm.
1 xiber(12 pulzieri)	10.31 "	26.19 cm.
1 qasba(8 t'xbar)	2.29 yards	2.10 m.

4. MEASURE OF AREA

1 qasba kwadra	5.25 sq. yards	4.39 sq. metres
1 kejla	22.41 "	18.73 "
1 siegh(10 kejliet)	224.10 sq. yards	187.35 "
1 tomna (6 sighan)	0.28 acres	0.11 hectares
1 wejla (4 tmien)	1.11 acres	0.45 "
1 qundel(4 wejliet)	4.44 acres	1.80 "

5. MEASURES OF VOLUME

1 Xiber Kuba	0.63 C. ft.	17.97 dm^3
1 Qasba Kuba	12.04 C. ft.	9.20 dm^3

NOTE: An acre is equivalent to 3.6 tmien.

A tomna is a square with sides 110 ft. long.

TABLE 2

1965

i) Farm Population (1960 - 1965)

	1960/61	1962/63	1963/64	1964/65
Wholetime Farmers ...	7,330	6,858	6,737	6,476
Part-time farmers. ...	8,815	8,751	9,124	8,281
Farm Population not engaged in farming	20,175	21,001	20,411	20,523
Children	17,191	15,779	14,741	13,549
	53,511	52,389	51,013	48,829

ii) Area

MALTA ...	94,870	or	60,717	acres
GOZO ...	25,899	or	16,575	acres
COMINO ...	1.075	or	688	acres

iii) Land Dsitribution

MALTA Agricultural Land	1960 Tmien	1961 Tmien	1963 Tmien	1964 Tmien	1965 Tmien
Dry	107,980	105,543	100,687	99,613	96,750
Irrigated	5,528	5,470	5,585	5,287	5,048
Waste	19,511	18,860	18,064	17,712	16,627
	133,019	129,873	124,336	122,612	118,425
GOZO					
Agricultural Land					
Dry	29,121	27,866	27,642	26,626	25,781
Irrigated	741	689	624	560	533
Waste	1,845	1,757	1,953	2,037	1,821
	31,707	30,321	30,219	29,223	28,135
TOTAL MALTA and GOZO	164,726	160,194	154,556	151,835	146,560

TABLE 3

GRANTS AND LOANS SCHEME

GRANTS - 1959/60 to 1964/65

	1959/1960	1960/1961	1961/1962	1962/1963	1963/1964	1964/1965
	£	£	£	£	£	£
GLASSHOUSES ...	-	2,593	2,073	2,510	7,335	3,809
POULTRY UNITS ...	-	1,856	2,906	4,013	7,898	10,180
PIG UNITS ...	-	-	-	-	-	1,891
MACHINERY	320	8,655	3,418	2,149	2,185	-
	320	13,104	8,397	8,672	17,418	15,880

LOANS - 1959/60 to 1964/1965

GLASSHOUSES ...	-	8,932	7,272	8,572	11,992	5,714
POULTRY UNITS ...	-	7,436	11,788	14,479	16,461	6,786
PIG UNITS ...	-	-	800	3,700	-	2,835
MACHINERY ...	18,918	23,418	16,255	6,361	4,440	-
	18,918	39,786	36,115	33,112	32,893	15,335

TABLE 4

SEED POTATOES IMPORTED FROM 30 TH NOVEMBER, 1965

DATE OF RELEASE	NAME OF SHIP	ARRAN BANNER N. IRELAND	ARRAN BANNER EIRE	ALPHA HOLLAND	ALPHA DENMARK	CRAIGS ROYAL	PENTLAND BEAUTY	PENTLAND DELL
30.11.65 to 1.12.65	S.S. HELENA	696 tons	-	-	-	50 tons	1 ton	½ ton
1.12.65	S.S. KNUDSHOLM	-	-	-	125 tons	-	-	-
3.12.65	S.S. MENTOR	-	-	225 tons	-	-	-	-
4.12.65	S.S. NAFSIBOROS	-	206½ tons	-	-	-	-	-
10.12.65	S.S. DAJE BOHMER	-	-	60 tons	-	-	-	-
13.12.65	S.S. VENTERLAND	-	-	-	191 t. 17 cwt.	-	-	-
14.12.65	S.S. STENTOR	-	-	97. 13 cwts.	-	-	-	-
15.12.65	STAR	-	-	-	400 tons	-	-	-
24.12.65	S.S. PHILETAS	-	-	27. 7 cwts.	-	-	-	-
27.12.65	S.S. SALAMANIA	-	482½ tons	-	-	-	-	-
1. 1.66	S.S. YVAN GORTHON	-	311 tons	-	-	-	-	-
		696 tons	1,000 tons	410 tons	716 tons 17 cwt.	50 tons	1 ton	½ ton

RECAPITULATION

A. BANNER, NORTHERN IRELAND	...	696 tons	
A. BANNER, EIRE	...	1,000 tons	
ALPHA HOLLAND	...	410 tons	
ALPHA DENMARK	...	716 tons	17 cwts.
CRAIGS ROYAL, NORTHERN IRELAND	...	50 tons	
PENTLAND DELL	...		10 cwts.
PENTLAND BEAUTY	...	1 ton	
		2,874 tons	7 cwts.

TABLE 5

SPRING POTATOES EXPORTED DURING 1965

DATE	DESTINATION	QUANTITY TONS	CWT.	QRS.
13.4.1965	Liverpool	200	-	-
15.4.1965	London	80	13	-
15.4.1965	London	226	8	2
16.4.1965	London	201	1	2
24.4.1965	Liverpool/Glasgow	306	12	2
26.4.1965	United Kingdom Port	200	-	-
29.4.1965	United Kingdom Port	355	-	-
29.4.1965	Rotterdam	190	-	-
30.4.1965	London	386	19	2
3.5.1965	Glasgow	175.	-	-
5.5.1965	London	74	-	-
6.5.1965	Rotterdam	331	19	-
10.5.1965	Rotterdam	378	12	2
11.5.1965	Liverpool	379	16	-
13.5.1965	London	254	19	2
20.5.1965	Rotterdam	950	10	-
20.5.1965	Rotterdam	212	10	-
23.5.1965	Rotterdam	748	17	2
23.5.1965	Hull	200	-	-
26.5.1965	London/Rotterdam	262	10	-
27.5.1965	Rotterdam	419.	19	2
29.5.1965	Rotterdam	471	8	-
30.5.1965	Rotterdam	291	8	-
4.6.1965	Rotterdam	291	8	2
		7,589	13	2

TABLE 6

EXPORT OF DRY ONIONS 1965

DATE	NAME OF SHIP	DESTINATION	QUANTITY TONS	CWT.	QRS.
3.7.1965	S.S. ALMERIAN	LONDON	164	13	2
7.7.1965	S.S. DEROR	LIVERPOOL	134	17	0
8.7.1965	S.S. CATANIAN	LONDON	229	5	2
10.7.1965	S.S. MIRYAM	UNITED KINGDOM	134	10	0
13.7.1965	S.S. SARA	LONDON	179	18	2
13.7.1965	S.S. CAVALLO	LONDON	173	0	0
21.7.1965	S.S. DEVORA	UNITED KINGDOM	19	5	2
24.7.1965	CATTARO	LONDON	42	1	2
			1,077	11	2

TABLE 7

SALES FROM PITTELLI MARKETS

VEGETABLES

	1963		1964		1965	
	WEIGHT	VALUE	WEIGHT	VALUE	WEIGHT	VALUE
		£		£		£
Artichokes (G)	974,038	12,500	816,212	11,269	1,138,309	11,169
Artichokes (J)	69,914	1,950	83,917	2,254	107,388	1,687
Beans Broad	798,159	9,711	487,592	6,548	691,113	12,515
Beans French	64,797	2,610	66,518	3,403	57,902	2,644
Beetroot (Unt.)	209,027	1,932	184,859	1,827	160,392	1,656
Bellpepper	240,297	4,685	187,088	3,892	208,992	5,882
Broccoli	227	16	912	29	197	8
Brussels Sprouts	-	-	3,655	581	3,763	701
Cabbages	2,223,024	23,144	2,337,566	23,747	2,263,744	26,639
Carrots	10,049	86	20,023	157	15,015	203
Carrots (Unt.)	1,342,436	14,803	1,373,355	14,176	1,137,908	13,771
Caul'flowers(T)	2,991,617	32,920	2,107,823	22,950	1,796,203	27,842
Cauliflowers (Unt.)	1,545,643	15,218	1,745,635	24,163	1,590,024	19,568
Celery	356,889	5,019	388,125	4,561	344,233	4,669
Centenary	284	6	580	9	1,232	23
Chickpeas	72,799	726	45,818	423	57,648	553
Cucumber	116,913	3,236	148,058	3,959	160,325	3,752
Eggplant	237,304	4,109	179,315	3,078	185,139	4,423
Endive	252,836	2,077	198,008	1,900	196,856	1,873
Garlic Dry	70,684	1,066	6,016	441	11,388	1,023
Garlic Green	242,376	3,290	140,676	4,597	91,016	5,076
Gourds	372,681	4,413	230,301	3,024	272,671	2,968
Fennel	22	-	1,638	19	619	9
Kohlrabi	1,750,561	18,202	1,577,340	17,778	1,376,018	16,776
Leeks	10,534	90	8,543	89	12,452	124
Lettuce	928,906	16,784	794,757	13,819	767,403	14,416
Marrows Long	471,871	5,805	398,549	4,298	492,030	4,257
Marrows Veg	1,123,313	26,594	1,139,653	26,094	1,036,877	31,538
Mint Herbs	300	6	714	13	706	14
Onions Dry	1,381,810	13,528	884,724	22,924	672,555	18,219
Onions Green	424,700	2,817	450,540	5,293	635,304	9,000
Onions Pickles	9,589	158	3,951	94	5,440	128
Parsley	48,268	1,295	61,946	1,209	54,122	1,410
Potatoes Spring	3,540,468	63,345	3,575,471	76,967	3,689,443	81,615
Potatoes Winter	2,213,074	54,967	2,165,692	45,173	2,722,019	49,878
Pumpkins	1,042,943	20,524	1,202,429	13,787	1,126,006	16,100
Peas	267,237	9,281	186,125	10,025	162,952	8,076
Radishes	5,396	133	2,793	74	1,121	34
Seakle Beet	737	4	1,209	15	592	7
Spinach	285,876	4,252	296,877	5,021	231,029	4,514
Tomatoes	746,744	31,067	601,184	26,330	452,401	33,031
Tomatoes R.	970,486	14,833	1,048,106	15,300	749,010	1,574
Tomatoes O.	966,114	13,225	998,045	10,465	1,140,304	16,243
Turnips	5,013	68	51,771	3,011	908	12
		£440,495		£434,786		£455,602

TABLE 8

SALES FROM PITAKLI MARKETS

FRUITS

	1963		1964		1965	
	WEIGHT	VALUE £	WEIGHT	VALUE £	WEIGHT	VALUE £
Apples	242,150	8,645	169,326	7,798	290,795	9,371
Apricots	2,156	257	1,256	168	2,448	280
Bambinella	26,138	1,904	35,342	2,830	7,719	690
Banana (Heads)	942	11	524	6	309	3
Blackberries	7,517	502	1,624	119	460	137
Cherries	-	-	65	19	151	51
Figs Dry	2,699	89	2,149	82	1,282	51
Figs Early	194,342	5,865	250,493	7,049	19 ,393	5,332
Figs late	44,196	1,203	45,671	1,393	40,350	1,289
Grapes	514,467	18,421	456,898	16,664	686,043	20,424
Grapefruit	35	8	60	12	52	11
Lemon (Dozen)	40,318	4,717	80,482	5,805	125,003	6,648
Lemon Sweet (Dozen)	50	3	78	4	54	3
Medlars	34,043	1,203	8,055	355	18,542	800
Melons Sugar	628,270	12,743	533,370	9,491	545,872	12,558
Melons Water	464,768	9,542	447,291	7,340	483,253	9,416
Melons Winter	251,009	4,077	302,907	5,860	335,396	5,720
Mulberries	5,341	127	2,621	82	4,362	110
Nectarines	1,022	49	596	38	3,990	196
Olives	1,542	35	211	8	2,646	93
Oranges (Dozen)	39,132	51,832	51,407	6,024	41,139	5,635
Oranges Sweet (Dozen)	7,443	877	10,773	1,583	8,286	1,363
Peaches	597,743	29,643	260,012	18,722	1,086,406	30,674
Pears	55,011	2,894	42,307	2,015	10,160	791
Pears Prickly	21,583	164	69,354	421	37,682	264
Plums	59,861	4,468	73,929	4,755	85,178	3,649
Plums Cherry	70,366	2,944	225,240	9,872	292,964	8,421
Pomegranites	81,235	1,690	80,679	1,909	69,485	1,193
Prunes	922	41	263	17	104	5
Strawberries E.	60,768	11,778	54,775	9,726	94,271	16,493
Strawberries Local	822	531	7,816	631	541	293
Tangerines (Dozens)	8,199	893	14,488	1,655	9,466	1,229
		£129,156		£122,453		£143,203

TABLE 9

YEARLY ENUMERATION OF LIVESTOCK 1957 - 1966

YEAR	CAPRINES		OVINES		BOVINES		SWINE		EQUINES		POULTRY & RABBITS	
	MALTA	GOZO	MALTA	GOZO	MALTA	GOZO	MALTA	GOZO	MALTA	GOZO	MALTA	GOZO
1957	25,611	13,726	9,204	5,614	7,066	2,661	10,493	2,805	4,995	1,825	244,473	144,042
1958	23,743	13,201	9,233	5,778	7,626	2,172	12,381	3,981	4,748	1,827	252,588	157,307
1959	22,625	13,246	8,649	5,616	7,429	2,107	12,094	2,701	4,587	1,757	249,502	131,840
1960	21,010	13,678	7,909	5,107	7,206	2,172	11,217	2,829	4,422	1,698	264,515	132,513
1961.	18,587	12,425	7,190	4,413	6,282	1,809	12,507	3,885	4,290	1,603	264,320	148,983
1963	17,225	13,083	6,424	4,538	6,566	2,013	12,414	3,343	3,978	1,619	280,353	144,283
1964	16,438	12,741	6,518	4,709	6,001	1,986	10,428	2,990	3,833	1,500	322,528	119,769
1965	14,818	11,164	6,419	4,066	5,384	1,874	12,217	2,949	3,582	1,362	355,186	140,383

TABLE 10

DISEASE AND OTHER CAUSES OF UNSOUNDNESS OF MEAT DURING THE YEAR 1st JANUARY TO 31st DECEMBER, 1965

DISEASE	CATTLE	PIGS	SHEEP	GOATS	LAMBS	KIDS	EQUINES	TOTAL
Anthrax	-	-	-	-	-	-	-	-
Cysticercosis	-	-	-	-	-	-	-	-
Decomposition	-	-	-	-	-	-	2	2
Emaciation	-	-	1	-	-	-	-	1
Fevered Flesh	-	-	-	-	-	-	-	-
Jaundice	-	-	-	-	-	-	-	-
Leukaemia	-	-	-	-	-	-	-	-
Mastitis	-	-	2	-	-	-	-	2
Metritis	1	-	-	-	-	-	-	1
Nephritis	-	-	-	-	-	-	-	-
Oedaema	1	-	-	-	-	-	-	1
Peritonitis	6	-	-	1	-	-	-	7
Pneumonia	2	-	-	-	-	-	-	2
Putrefication	5	4	2	2	-	-	2	15
Septicaema	2	1	1	1	-	-	-	5
Swine Erysipelas	-	1	-	-	-	-	-	1
Tetanus	-	-	-	-	-	-	-	-
Tuberculosis	12	-	-	-	-	-	-	12
Swine Fever	-	5	-	-	-	-	-	5
TOTAL	29	11	6	4	-	-	4	54

TABLE 11

VACCINATION OF PIGS & INOCULATIONS OF POULTRY

DURING THE YEAR 1st JANUARY to 31st DECEMBER, 1965

MALTA

	POULTRY		SWINE	
	FOWL PEST	FOWL POX	SWINE ERYSIPELAS	SWINE FEVER
January	5,936	4,110	431	755
February	6,810	6,350	383	443
March	6,540	4,810	380	620
April	450	10,195	351	971
May	9,660	8,300	382	1,014
June	7,810	5,780	428	569
July	7,628	3,410	451	975
August	7,685	2,280	219	998
September	8,405	3,915	331	605
October	1,620	6,370	589	761
November	2,300	6,705	875	612
December	1,050	3,776	200	1,564
TOTALS	65,894	66,001	5,020	9,887

GOZO

January	-	-	-	-
February	5,100	6,100	165	65
March	7,000	9,000	350	175
April	300	500	11	20
May	9,200	11,200	135	135
June	3,200	-	244	310
July	-	-	146	220
August	-	-	-	27
September	-	-	69	20
October	-	-	201	-
November	-	-	5	31
December	1,000	1,400	25	-
TOTAL	25,800	28,200	1,351	1,103

TABLE 12

STOCKS OF IMPORTED STORE CATTLE DURING

THE YEAR 1st JANUARY to 31st DECEMBER, 1965

MONTH	IMPORTATION BULLOCKS	TOTAL IMPORTED	SLAUGHTERED MALTA	SLAUGHTERED GOZO	TOTAL SLAUGHTERED	BALANCE -	BALANCE +
	Stock in Hand on 1st January, 1965						2,849
JANUARY	293	293	642	23	665	372	-
FEBRUARY	270	270	583	24	607	337	-
MARCH	-	-	600	23	623	623	-
APRIL	1,010	1,010	566	19	585	-	425
MAY	300	300	529	8	537	237	-
JUNE	652	652	489	3	492	-	160
JULY	580	580	576	8	584	4	-
AUGUST	595	595	619	5	624	29	-
SEPTEMBER	539	539	570	7	577	38	-
OCTOBER	543	543	586	7	593	50	-
NOVEMBER	-	-	433	7	440	440	-
DECEMBER	399	399	474	11	485	86	-
	5,181	5,181	6,667	145	6,812	2,216	3,432

STOCK IN HAND 1/1/1965	2,847
IMPORTED DURING 1965	5,181
	8,028
SLAUGHTERED DURING 1965	6,812
STOCK IN HAND 1/1/1966	1,216

fgd..

TABLE 13

SLAUGHTERINGS DURING THE PERIOD

1/1/65 to 31/12/1965

MALTA

MONTH	CATTLE	PIGS	SHEEP	LAMBS	GOATS	KIDS	EQUINES
JANUARY	755	2,312	467	617	618	52	38
FEBRUARY	700	2,307	433	228	572	219	36
MARCH	758	2,497	451	115	597	328	45
APRIL	686	2,472	421	244	571	344	45
MAY	662	2,445	403	72	504	231	47
JUNE	677	2,114	360	18	470	154	35
JULY	816	1,871	319	25	504	135	38
AUGUST	793	1,893	295	56	479	73	37
SEPTEMBER	698	2,053	323	293	552	63	37
OCTOBER	754	2,563	326	1,725	834	66	38
NOVEMBER	640	2,348	367	1,212	736	22	38
DECEMBER	662	3,064	429	879	752	41	34
No of ANIMALS	8,601	27,939	4,594	5,484	7,189	1,728	468
TOTAL WEIGHT	2,674,302	2,309,948	171,716	49,620	180,782	8,690	97,201
AVERAGE WEIGHT	311	83	37	9	25	5	208
			GOZO				
JANUARY	72	221	30	94	22	28	-
FEBRUARY	61	254	29	182	23	33	-
MARCH	65	269	37	67	31	38	3
APRIL	56	200	6	52	8	108	2
MAY	46	197	9	14	19	51	2
JUNE	48	220	5	-	5	14	-
JULY	58	183	3	-	4	1	-
AUGUST	45	172	4	2	5	4	-
SEPTEMBER	53	176	12	28	8	3	-
OCTOBER	59	205	23	197	7	1	1
NOVEMBER	54	201	16	191	12	-	-
DECEMBER	74	255	22	105	15	17	1
No of Animals	691	2,553	196	932	159	298	9
TOTAL WEIGHT	242,153	259,659	5,833	18,841	3,480	1,776	2,617
AVERAGE WEIGHT	350	102	30	20	22	6	290

TABLE 14

RESPECTIVE WEIGHT IN ROTOLI OF ANIMALS SLAUGHTERED DURING 1965

MALTA

MONTH	CATTLE	PIGS	SHEEP	LAMBS	GOATS	KIDS	EQUINES
JANUARY	224,315	188,153	17,162	5,916	16,494	280	7,950
FEBRUARY	201,117	192,411	16,400	2,340	15,145	1,053	7,730
MARCH	231,658	208,274	16,850	1,149	14,855	1,634	9,190
APRIL	233,968	206,033	15,633	2,271	14,214	1,689	9,390
MAY	216,046	205,803	15,130	744	12,469	1,277	8,761
JUNE	214,091	176,959	13,452	194	11,747	705	7,550
JULY	243,833	147,712	12,007	259	12,742	702	8,050
AUGUST	247,712	150,494	11,102	573	11,919	379	8,110
SEPTEMBER	215,378	169,129	11,935	2,588	13,709	291	8,080
OCTOBER	240,708	206,730	12,353	16,062	20,462	366	8,190
NOVEMBER	195,202	196,319	13,652	11,331	18,093	116	8,280
DECEMBER	210,274	261,931	16,040	8,193	18,933	198	7,920
TOTAL	2,674,302	2,309,948	171,716	49,620	180,782	8,690	97,201

GOZO

JANUARY	25,678	21,411	882	994	483	172	-
FEBRUARY	21,699	25,070	825	1,880	476	184	-
MARCH	22,296	26,718	1,080	708	620	230	1,028
APRIL	19,941	20,116	170	526	180	646	587
MAY	15,694	19,386	262	142	415	302	430
JUNE	16,250	21,516	120	-	111	80	-
JULY	19,470	18,624	86	-	92	6	-
AUGUST	15,902	17,218	138	20	114	26	-
SEPTEMBER	18,784	17,618	366	280	184	18	-
OCTOBER	21,033	20,938	730	2,022	166	8	286
NOVEMBER	20,038	24,440	492	1,977	260	-	-
DECEMBER	25,368	26,604	682	10,292	379	104	286
TOTAL	242,153	259,659	5,833	18,841	3,480	1,776	2,617

TABLE 15

i) Cooperative Societies on Register as on 31st December, 1965

Primary

Agricultural Produce	...	15 (a)
Agricultural Equipment	...	3
Tailors (Supply)	...	1 (b)
Milk Producers	...	1
Consumers	...	4 (c)
Milk and Agriculture Producers	...	1
Wine Producers	...	1
Egg Producers	...	2
Agricultural Trading	...	1
Fisheries Cooperative	...	1

Central

Agricultural	...	1
Total Number of societies	...	31
Membership (estimated)		3,100

(a) 3 in course of liquidation
(b) 1 in course of liquidation
(c) 2 in course of liquidation

ii) Principal Items of Assets and Liabilities of Co-operative Societies, 1965

Liabilities

Share	...	£42,970	
Reserve and Provisions	...	5,596	
Creditors	...	166,181	
Disposable Balances	...	335	
Loans	...	40,838	£255,920

Assets

Immovables	...	£126,557	
Movables and Stock	...	34,450	
Debtors	...	50,231	
Investments		869	
Cash in hand and at bank	...	20,636	
Deficiency in Capital	...	23,177	£255,920

TABLE - 16

LOCAL CATCH AND IMPORTS OF FRESH FISH

1956 - 1965

YEAR	LOCAL (Cwt)	WHOLESALE VALUE £	IMPORTED (CWT)	WHOLESALE VALUE £
1956	16,775	135,720	2,099	23,635
1957	18,015	168,285	2,022	24,387
1958	21,101	204,115	2,478	22,387
1959	20,791	200,729	1,355	15,162
1960	24,341	227,053	1,751	18,809
1961	27,006	236,601	1,610	21,345
1962	26,343	248,770	1,167	15,658
1963	29,815	283,207	976	14,786
1964	26,955	324,094	528	9,293
1965	25,575	334,851	469	7,658

FISH CAUGHT DURING 1965

TABLE 17

(IN ROTOLI)

SPECIES	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
ACCOLA	-	-	-	-	348	-	977	-	533	-	-	-	1,858
ARZNELL/MUNDARA	5,000	11,070	22,941	41,392	14,141	8,169	539	-	-	2,165	1,606	2,838	109,941
BOLL/HAM/RAI	600	1,933	9,988	4,297	2,449	3,951	1,555	1,485	-	-	-	1,084	27,342
CERNA	-	-	526	414	491	903	1,392	1,205	902	614	361	376	7,244
DENTICI	255	233	296	303	438	752	831	581	283	230	400	435	[illegible]
DOTT/HANZIR	-	-	-	-	343	1,319	1,423	2,436	-	-	354	-	5,875
FANFRI	-	-	-	-	-	-	-	-	22,355	18,427	12,766	1,669	55,217
GALLINA	678	-	-	1,321	1,638	743	1,439	731	-	-	1,358	300	8,207
GAMBLI	-	-	-	1,325	1,870	1,153	1,903	836	919	1,278	-	1,435	10,719
GUTA KAHLA	4,369	2,012	2,649	3,316	2,095	1,438	260	791	346	-	-	-	17,476
KAHLI	646	1,322	907	1,871	1,234	4,893	1,366	736	-	-	-	918	13,893
KAVALLI	-	-	-	-	219	4,357	1,474	6,592	277	-	-	-	12,829
KLAMARI	-	395	-	-	282	-	-	551	-	-	-	1,068	2,796
LACCI	234	519	-	-	-	5,755	5,465	923	519	-	-	-	13,415
LAMPUKI	-	-	-	-	-	-	-	7,883	159,349	200,397	104,572	7,410	487,616
MAKKU	-	223	-	-	-	1,459	4,573	6,636	3,762	490	-	-	17,143
MAZZOLA	1,031	2,197	6,001	4,874	5,790	4,714	5,005	4,118	-	-	-	1,386	35,206
MORINA	585	1,[illegible]	1,453	1,346	1,846	3,834	2,175	1,037	-	-	-	457	14,638
MULETT	242	419	807	-	496	431	396	-	-	-	-	200	2,991
PAGELL	982	1,591	1,[illegible]	1,[illegible]	1,[illegible]	[illegible]	[illegible]	-	-	-	-	1,473	8,058
PAGRI	-	-	-	-	397	597	740	-	-	-	-	257	1,991
PIXXI PLAMTU	2,943	1,051	2,644	781	342	1,687	436	-	-	-	-	341	10,225
PIXXISPAD	3,275	206	518	2,337	7,[illegible]8	7,550	28,398	14,530	1,085	-	-	-	64,917
PLAMTU	-	643	2,813	-	-	-	-	-	-	-	-	-	3,456
QARNIT	1,264	2,756	2,425	2,986	2,614	2,604	942	1,131	1,658	1,269	3,665	3,[illegible]0	26,634
SARGU	-	-	430	533	1,096	506	287	-	-	-	153	376	3,381
SAWRELL	28,493	8,182	13,980	1,712	12,893	25,398	54,176	15,340	3,550	2,266	5,879	20,718	192,587
SICC	-	-	231	-	-	-	-	-	-	-	-	-	231
SIRRAN	1,482	1,246	1,991	2,305	2,228	1,333	536	-	-	-	315	1,325	12,761
TONN	1,343	1,197	-	-	6,229	1,536	223	-	-	-	8,076	-	18,604
TONNAGGI	-	-	-	-	-	-	-	-	6,749	15,338	-	2,392	24,479
TRILL	1,211	526	869	1,482	1,126	4,069	333	-	-	-	653	827	11,096

(Continued .....)

(Continued)

TABLE 17

SPECIES	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
TUMBRELL	-	-	1,765	2,163	9,885	-	-	-	302	205	869	1,002	16,191
VOPI	25,954	15,006	15,361	9,286	17,261	44,686	34,952	33,613	18,605	14,983	45,560	51,161	326,428
XILEP	376	1,656	1,449	862	1,114	883	1,542	1,304	341	-	478	596	10,601
XKATLU	-	-	-	-	-	501	834	213	-	-	-	-	1,548
ZAGHRUN	-	-	-	-	550	966	1,713	-	-	-	-	-	3,229
HUT IEHOR	1,720	3,713	2,909	8,508	3,816	7,488	11,216	5,685	1,531	325	1,408	2,377	50,696
SARDIN	-	-	-	-	-	-	-	349	-	-	-	-	349
BRIEQEX	-	-	-	-	-	-	-	546	-	-	-	-	546
TOTAL	82,773	60,006	93,957	94,415	101,336	144,298	167,477	109,180	223,126	265,987	188,473	105,791	1,636,819

TABLE 18

AVAILABILITY OF FRESH FISH

YEAR	QUANTITY RTAL	WHOLESALE VALUE £	RETAIL VALUE £	AVERAGE RETAIL PRICE PER RATAL	QUANTITY RTAL	WHOLESALE VALUE £	RETAIL VALUE £	AVERAGE RETAIL PRICE PER RATAL	TOTAL QUANTITY RTAL
1964									
JANUARY	128,611	13,536	19,910	3/1	2,906	629	847	5/10	131,517
FEBRUARY	87,252	15,384	19,976	4/7	-	-	-	-	87,252
MARCH	89,272	17,210	21,745	4/11	800	112	171	4/3	90,072
APRIL	92,639	16,094	20,784	4/6	-	-		-	92,639
MAY	122,028	21,678	28,051	4/7	11,322	3,134	4,266	7/6	133,350
JUNE	141,313	23,016	31,740	4/6	11,354	3,480	4,616	8/2	152,667
JULY	172,099	29,143	40,763	4/9	4,996	1,254	1,873	7/6	177,095
AUGUST	91,193	17,636	23,727	5/2	1,311	280	411	6/3	92,504
SEPTEMBER	302,538	67,253	85,606	5/8	1,121	404	528	9/5	303,659
OCTOBER	243,588	51,023	61,431	5/1	-	-	-	-	243,588
NOVEMBER	178,183	35,816	48,461	5/5	-	-	-	-	178,183
DECEMBER	76,406	16,305	20,756	5/5	-	-	-	-	76,406
TOTAL	1,725,122	324,094	422,950	4/11 3/9	33,810	9,293	12,712	5/6 7/6	1,758,932
1965									
JANUARY	82.773	15,277	20,038	4/10	1,181	309	427	7/3	83,954
FEBRUARY	60,006	12,217	15,595	5/2	540	92	146	5/5	60,546
MARCH	93,954	20,646	26,072	5/6	1,820	579	760	8/4	95,774
APRIL	94,415	20,913	26,818	5/8	3,560	1,028	1,383	7/9	97,975
MAY	101,336	23,202	30,091	5/11	-	-	-	-	101,336
JUNE	144,298	30,085	39,344	5/5	12,154	3,518	4,733	7/9	156,452
JULY	167,477	31,500	45,873	5/6	5,572	1,300	1,857	6/8	173,049
AUGUST	109,180	20,886	28,720	5/3	-	-	-	-	109,180
SEPTEMBER	223,126	53,197	65,872	5/11	5,170	832	1,220	4/8	228,296
OCTOBER	265,987	53,495	66,979	5/-	-	-	-	-	265,987
NOVEMBER	188,473	36.064	49,056	5/3	-	-	-	-	188,473
DECEMBER	105,791	17,379	23,162	4/5	-	-	-	-	105,791
TOTAL	1,636.816	334,861	438,609	4/1 5/4	29,997	7,658	10,526	5/1 7/-	1,666,813

TABLE No. 19

LOANS AND GRANTS ISSUED TO FISHERMEN DURING 1965

1. Construction of Large Craft		2. Fishing Equipment & Repairs, etc.		3. Replacement of Engines	4. Modification to Craft Etc.	
LOANS 50%	GRANTS 30%	LOANS 50%	GRANTS 20%	GRANTS 40%	LOANS 50%	GRANTS 30%
£1,794	£1,076	£420	£168	£592	£375	£225
1,350	810	200	80	266	605	363
		600	240	512	83	35
		525	210	234	185	111
		260	104	252	145	87
		150	60	240	388	199
		200	80	240	628	269
		747	380	492	250	150
		226	90	200	133	79
		1,400	-	492	105	63
		125	75	128	182	109
		300	120		-	64
		60	20		-	330
£3,144	£1,886	£5,213	£1,627	£3,648	£3,079	£2,084

TOTAL LOANS £11,436
TOTAL GRANTS 9,245

£20,681

TABLE 20

AGRICULTURE

i) ORDINARY EXPENDITURE 1960/65

	"A" PERSONAL EMOLUMENTS						"B" OTHER CHARGES					
	ACTUAL 1960/61	ACTUAL 1961/62	ACTUAL 1962/63	ACTUAL 1963/64	ACTUAL 1964/65	ESTIMATES 1965/66	ACTUAL 1960/61	ACTUAL 1961/62	ACTUAL 1962/63	ACTUAL 1963/64	ACTUAL 1964/65	ESTIMATES 1965/1966
OFFICE	18,864	21,943	20,398	15,768	19,965	22,378	-	-	-	-	-	-
ADVISORY SERVICE	2,557	3,898	4,971	6,019	6,816	7,426	-	-	-	-	1,381	1,835
GOVERNMENT FARM	4,675	5,448	5,619	5,764	5,620	6,240	44,747	40,941	41,917	37,118	36,100	38,265
GARDENS, PLANTATIONS, and AFFORESTATION	25,107	31,128	29,617	29,430	31,148	33,436	27,826	31,029	27,922	27,997	27,342	29,448
PLANT PATHOLOGY, VITICULTURE & OENOLOGY	2,476	2,568	2,590	2,586	2,554	2,806	18,597	14,388	13,475	11,797	11,752	13,685
MARKETING	3,008	3,243	4,089	5,446	5,828	6,439	1,279	1,105	1,324	1,340	1,677	1,750
VETERINARY SERVICES	14,632	17,212	17,200	17,238	17,723	19,478	6,724	7,393	7,621	7,588	7,765	8,095
FISHERIES	-	-	12,137	12,615	13,431	14,220	-	-	20,918	20,611	17,347	22,827
GENERAL SERVICE	-	-	-	-	-	-	9,852	9,237	10,161	9,326	13,956	14,638
SUBSIDIES	-	-	-	3,843	-	-	1,606	1,706	76,607	72,871	86,857	82,295
TOTALS	71,319	85,440	96,571	98,709	103,085	112,423	108,611	105,599	199,945	188,657	204,177	212,838

(Table 20 continued)

(ii) "C" SPECIAL EXPENDITURE 1960/65

	£
Actual 1960/61	
Purchase of a Truck ...	621
Purchase of livestock for Government Farm	423
Purchase of two cars and two motor cycles(revote)	40
	1,084
ACTUAL 1961/62	
Purchase of Truck	207
Actual 1962/63	
Erection of a Cold Room at the Buskett Winery	495
Agricultural Delegation to Israel	787
	1,282
Actual 1963/64	
Purchase of livestock for Government Farm	500
Actual 1964/65	
International Congress on Brucellosis	356
Training of a Veterinary Surgeon	70
Assistance given to M.V. Hannibal	810
	£1,236
ESTIMATE 1965/66	
Purchase of Livestock	860
Training of a Vet. Surgeon	1,000
Grants to Fishermen	19,290
Repairs to Public Gardens	1,000
Electric Unit for Gozo Abattoir	50
	22,200

iii) E. Co-OPERATIVES - 1960-65

	ACTUAL 1960/61	ACTUAL 1961/62	ACTUAL 1962/63	ACTUAL 1963/64	ACTUAL 1964/65	ESTIMATES 1965/66
Personal Emoluments	2,381	2,709	2,684	6,558	2,782	3,069
Other Charges	7,160	7,639	6,451	2,567	7,023	7,168
Special Expenditure	-	-	-	-	-	-
	£9,541	£10,348	£ 9,135	£9,125	£9,805	£10,237

iv) F. PITKALI MARKETS 1960-65

Personal Emoluments	17,130	18,853	18,776	18,791	19,113	20,602
Other Charges	2,932	3,696	3,128	3,929	3,869	3,872
Special Expenditure	431	-	-	-	-	-
	£20,493	£22,549	£21,904	£22,720	£22,982	£24,474

TABLE 20

CAPITAL EXPENDITURE - AGRICULTURE AND FISHERIES

DETAILS OF EXPENDITURE	ACTUAL EXPENDITURE 1959/64	PLAN ESTIMATES 1964/69	ESTIMATES 1964/65	ACTUAL EXPENDITURE 1964/65	ESTIMATE 1965/66	ACTUAL EXPENDITURE 1965/66
1. Cattle Disease Eradication Scheme	137,984	54,385	21,100	23,450	18,815	14,388
2. Animal Vaccination Scheme	19,944	1,056	1,056	-	1,056	941
3. Incentive Grants to Farmers	25,546	70,090	12,660	8,985	10,550	2,857
4. Expenses in connection with Experts	47,600	39,608	7,773	2,915	7,754	-
5. Training of Personnel Abroad	26,749	32,705	4,220	1,986	7,906	1,884
6. Adopted Farms	3,055	2,945	2,945	20	2,925	677
7. Grants to Farmers	51,399	100,000	13,200	13,707	17,700	30,038
8. Public Gardens, Plantations and Afforestations	98,850	68,243	10,000	10,000	15,825	14,385
9. Improvements to Public Gardens	1,309	8,691	8,691	8,515	1,774	157
10. Modernisation of Civil Abattoir, Malta (a)	17,696	604	604	118	486	403
11. Cattle Quarantine Station	-	42,200	26,375	847	27,825	15,212
12. Equipping and Staffing Research Laboratory	-	53,317	14,770	827	13,000	731
13. General Development of Horticulture	-	211,332	50,295	3,960	73,575	30,094
14. Fruit Planting Incentive Grants	-	12,659	792	596	1,503	1,248
15. Development of Viticulture	-	17,824	5,480	1,223	4,642	4,608
16. Mobile Steam Sterilizing Units	-	11,606	5,803	-	11,606	-
17. Agricultural Produce Inspection Shed	-	24,792	9,495	-	9,495	-
18. Assistantce to Co-operatives (Grants)	-	30,000	10,000	-	6,000	-
19. Improvements to Farmhouses (Grants)	-	23,000	7,200	-	5,000	3,436
20. Establishment of Agricultural Laboratories	-	12,132	6,330	879	7,802	1,335
21. Eradication of Swine Diseases	-	15,000	5,000	-	6,000	1,447
22. Purchase of Adaptation of R. N. Abattoir	-	2,000	2,000	-	2,000	40
23. Loans to Farmers	165,000	150,000	19,800	20,049	26,550	44,397
24. Assistance to Co-operatives (Loans)	-	45,000	2,500	-	9,000	-
25. Improvements to Farmhouses (Loans)	-	34,500	1,800	-	7,500	5,035
26. Equipping and Staffing Diagnostic Laboratory	-	40,177	-	-	7,918	2,964
27. Central Markets		136,833	-	-	10,000	-
Development of Pig Breeding Industry	-	19,500	-	-	-	174
TOTAL AGRICULTURE ...	£595,132	£1,260,199	£249,889	£98,077	£314,207	£176,457

Fisheries (overleaf).....

CAPITAL EXPENDITURE (continued)

FISHERIES

DETAILS OF EXPENDITURE	ACTUAL EXPENDITURE 1959/64	PLAN ESTIMATES 1964/69	ESTIMATES 1964/65	ACTUAL EXPENDITURE 1964/65	ESTIMATES 1965/66	ACTUAL EXPENDITURE 1965/66
28. Grants to Fishermen	21,953	34,000	5,500	5,658	6,000	8,361
29. Improvements at Marsaxlokk	-	37,980	2,500	7,627	16,880	16,036
30. Provision of 2 winches at Marsaxlokk and Wid iz-Zurrieq	-	2,907	2,907	-	2,907	749
31. Construction of Moles	-	79,000	15,825	4,977	26,703	5,620
32. Extnesion of Moles at Wied iz-Zurrieq	-	11,605	6,330	326	11,279	1,395
33. Fishing Research	-	15,498	5,380	-	5,380	309
34. Sundry Works at Fishing Centres	12,000	25,320	7,385	5,680	8,330	9,741
35. Loans to Fishermen	30,875	51,000	9,000	5,977	9,750	11,665
36. Dredging of Inner Part of Marsaxlokk	-	47,475	-	-	21,000	14
37. Building of Dwelling Units	-	64,988	-	-	21,000	8,753
38. Expropriation of Lands and Old Fishponds at Marsaxlokk (a)	2	15,020	8,998	15,000	14,105	20
TOTAL FISHERIES	64,830	384,793	63,825	45,245	143,534	62,661
TOTAL AGRICULTURE	595,132	1,260,199	249,889	98,077	314,207	176,457
COMPLETED SCHEMES						
Equipping for Crop Protection Spraying Service	8,031	1,769	1,769	1,769	-	- -
TOTAL EXPENDITURE	£667,993	£1,646,761	£315,483	£145,091	£457,741	£238,118

(a) Completed in 1965/66

TABLE 20 (continued)

REVENUE 1961 -1965

	ACTUAL 1961/62	ACTUAL 1962/63	ACTUAL 1963/64	ACTUAL 1964/65	ACTUAL 1965/66
VII Fees of Office and Reimbursements					
A. Fees of Office					
Agriculture and Fisheries					
Fisheries					
24. Fees for Fish-hawker Arm Badges	12	10	16	15	12
25. Permits and Licences	58	43	38	38	40
Veterinary Services					
33. Abattoir Fees	17,344	19,006	16,693	15,105	15,078
Agriculture					
34. Licences, certifiaates, etc.	261	522	360	341	392
	17,675	19,581	17,107	15,499	15,522
B. Reimbursement					
Fisheries					
66. Sale of Fishing Equipment	10,505	8,296	9,959	6,998	7,569
67. Sale of Fish from experimental fishing Vess.	1,283	2,115	1,142	-	-
68. Commission on sales of imported fish	400	250	250	-	-
Agriculture					
88. Sale of vegetables from Government Farm	1,694	2,159	2,597	2,034	2,728
89. Sale of livestock from Government Farm	4,962	4,688	4,298	3,986	3,200
90. Sale of Dairy Produce	3,554	3,920	2,995	2,858	2,873
91. Sale of vine rootlings, etc. from vine nurseries	400	11	10	2,858	2,873
92. Sale of trees, plants from public plantations	1,639	1,521	1,561	1,280	1,934
93, Sale of Fruit etc. from San Anton Gardens	628	606	701	643	654
94. Sale of fruit etc. from Buskett Gardens.	1,575	1,145	1,776	2,171	1,758
95. Sale of fruit etc. from Dar il-Ljuni Gardens	118	53	115	111	103
96. Sale of Hatching eggs and Poultryfrom Govt. Farm.	7,784	6,133	5,515	4,384	5,450
97. Sale of Honey	-	-	12	30	24
98. Inspection of Agricultural Produce	-	561	450	379	256
99. Sale of Wine	747	747	258	144	-
101. Service by skilled personnel of the Dept on Distribution to farmers	4,439	2,760	4,146	2,481	2,507
VETERINARY SERVICES					
102. Maintenance of dogs kept under observation	67	78	130	131	254
MISCELLANEOUS REIMBURSEMENT					
113. Miscellaneous	620	638	408	698	1,239
Sale of Poultry Vaccine	- -	-	-	-	161
	40,986	35,303	36,146	28,788	30,737
XII INTEREST					
4. Interest of Loans	2,718	2,198	2,824	2,770	2,499
XII PENSION CONTRIBUTIONS					
1. Contribution under the Widows and Orphans	1,016	1,080	1,115	1,218	1,226
XVI MISCELLANEOUS RECEIPTS					
2. Miscellaneous	2,099	189	172	653	23
5. Repayment of Loans	12,114	18,971	19,155	27,373	35,247
	14,213	19,160	19,327	28,026	35,270
SUMMARY					
VII. A. Fees of Office	17,675	19,581	17,107	15,499	15,522
B. Reimbursement	40,986	35,303	36,166	28,788	30,737
XII. Interest	2,718	2,198	2,824	2,770	2,499
XIII Widows and Orphans (Pension Act 1927)	1,016	1,080	1,115	1,218	1,226
XVI. Miscellaneous Receipts	14,213	19,160	19,327	28,026	35,270
	76,608	77,322	76,539	76,301	85,254

TABLE 21

VALUE OF AGRICULTURAL EXPORTS

	1959 £	1960 £	1961 £	TOTAL 1959/61	1962 £	1963 £	1964 £	TOTAL 1962/64	1965 £
POTATOES ...	271,665	371,000	379,872	1,022,537	371,000	486,724	246,530	1,104,254	368,229
ONIONS ...	23,897	19,000	14,411	57,308	71,000	51,938	55,915	178,853	28,227
CUT FLOWERS, FOLIAGE and PLANT CUTTINGS ...	50,077	57,202	82,136	189,415	130,000	198,361	181,243	509,604	221,290
SEEDS AND BULBS ...	3,415	2,959	3,986	10,360	1,617	6,323	8,702	16,462	2,918
TOMATOES ...	50	21	211	282	900	4,677	4,555	10,132	5,063
ANIMALS LIVING ...	120	1,276	1,993	3,389	3,426	2,627	6,272	12,325	11,020
				£1,283,291				£1,831,810	£636,747
WINE ...	17,727	49,491	55,418	122,630	148,000	241,256	229,639	688,895	299,974
TOMATO PUREE' ...	301	140	-	441	-	9,623	10,257	19,880	21,524
TALLOW ...	4,210	17,862	6,750	28,822	600	11,960	6,553	19,113	3,700
WOOL RAW ...	4,170	3,300	2,150	9,620	1,172	4,824	2,390	8,386	2,610
HORSE HAIR ...	61	500	420	981	507	720	850	2,077	180
HIDES AND SKINS ...	89,655	49,017	59,807	198,479	40,693	52,697	34,828	128,218	39,057
BONES AND HOOFS ...	-	600	675	1,275	300	700	-	1,000	-
				£362,254				£867,569	£367,045
				£1,645,545				£2,699,379	£1,003,792